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THE ILLUSTRATED POULTRY RECORD

SPECIAL DAIRY SHOW ISSUE

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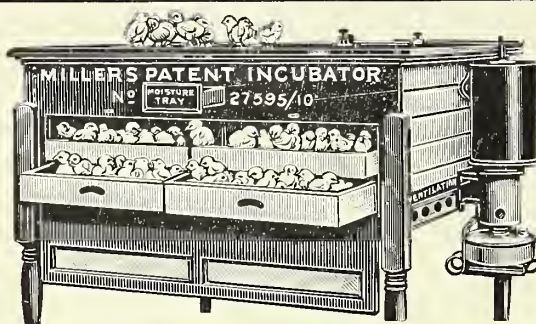
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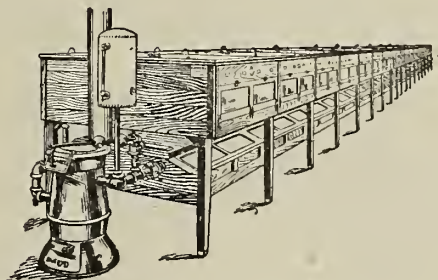
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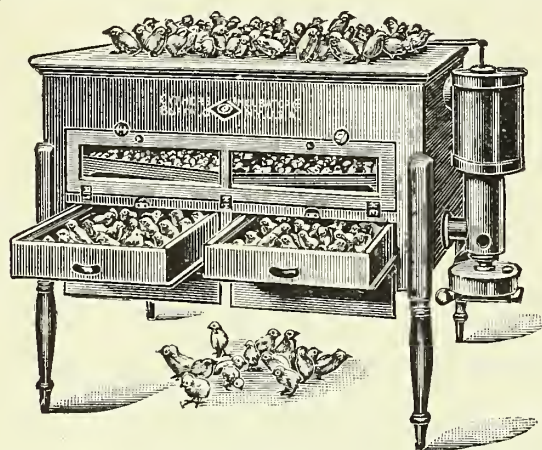
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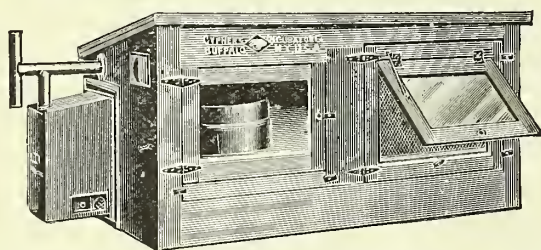
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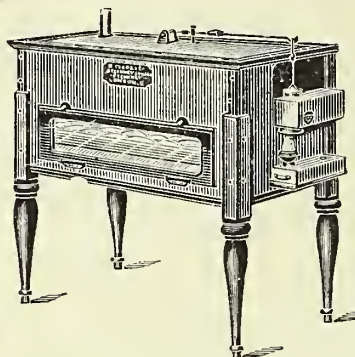
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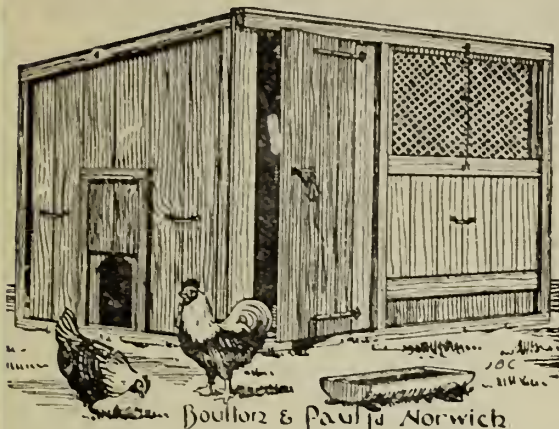
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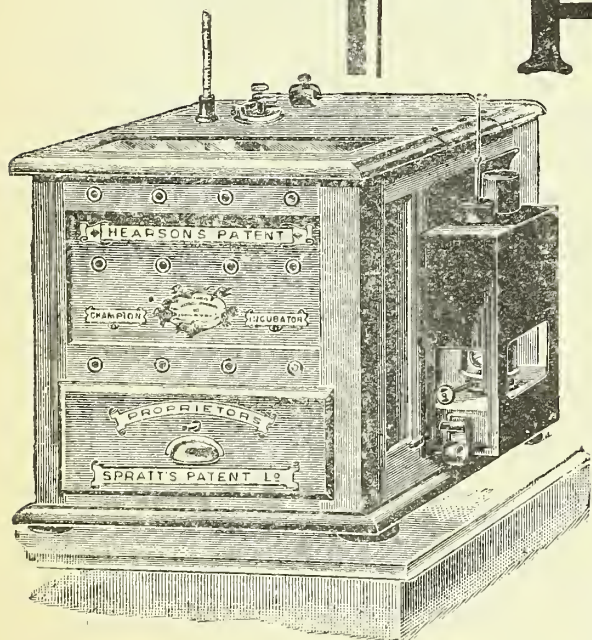
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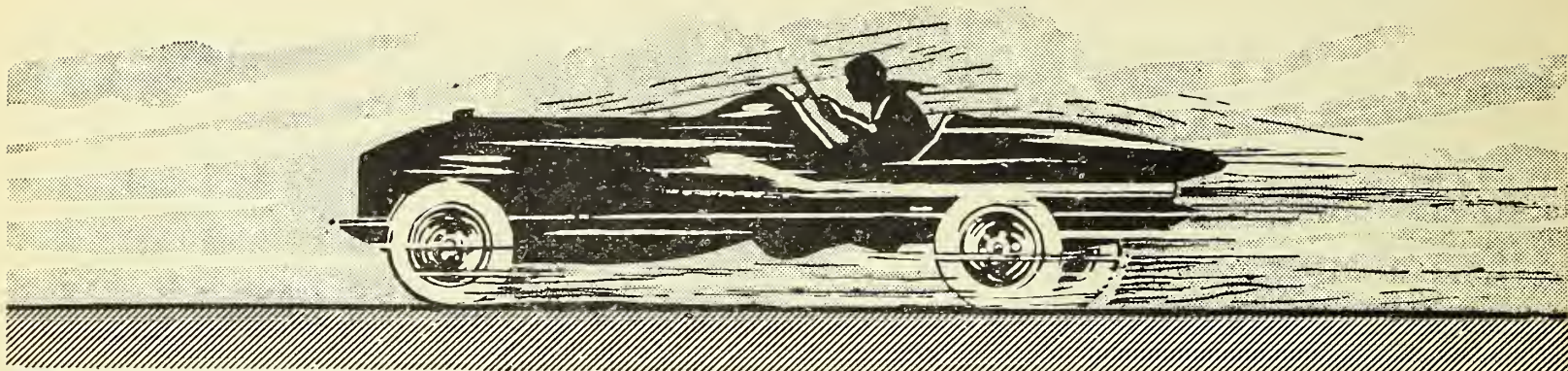
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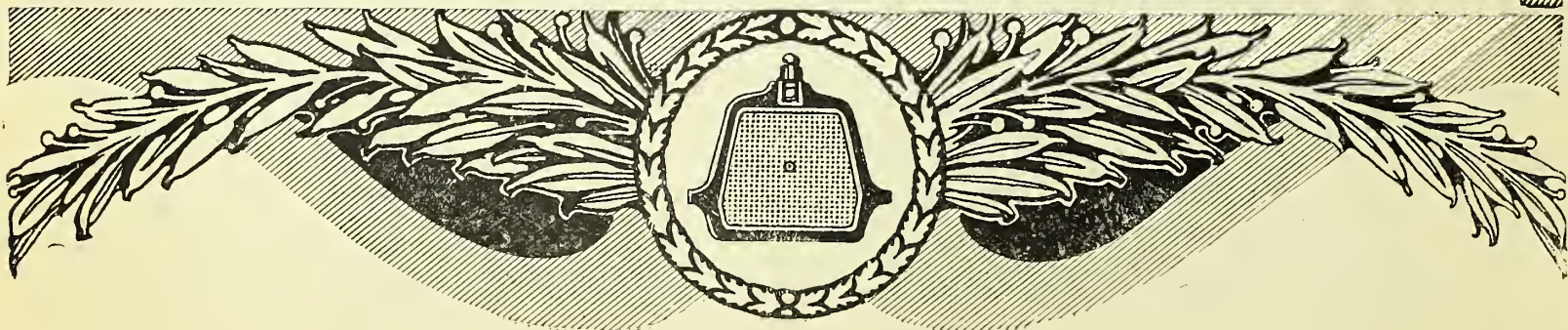
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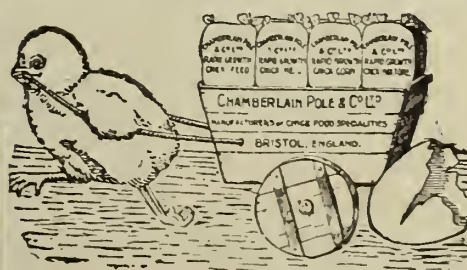
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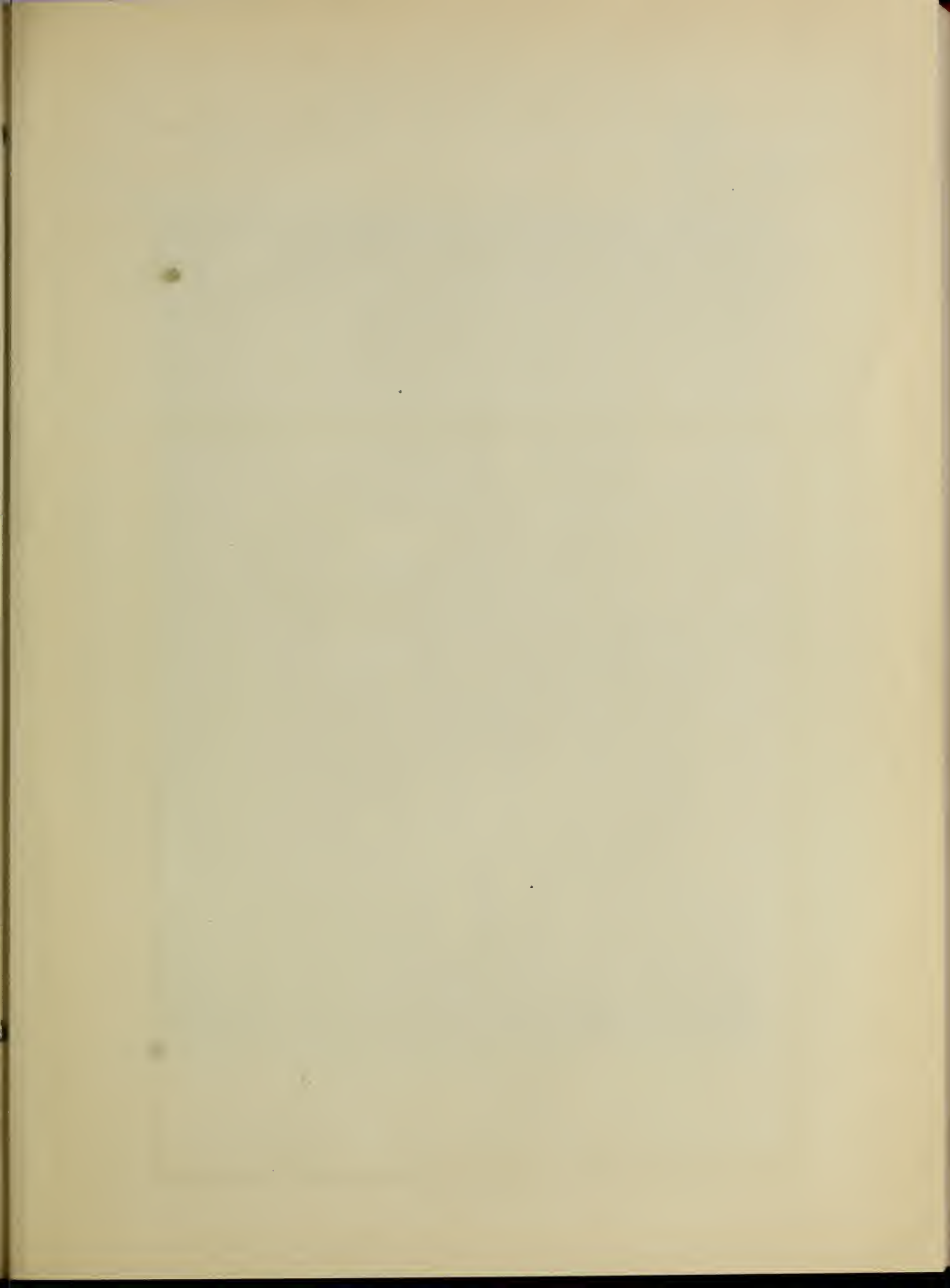
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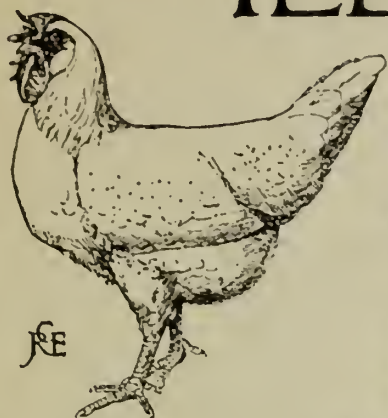




THE EGG MARKET AT EPE, HOLLAND.

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THE ILLUSTRATED POULTRY RECORD



Vol. VI.—No. 1.

October 1, 1913.

Monthly, Price Sixpence.

DIARY OF THE MONTH.

EDITORIAL NOTICES.

ATLANTIC HOUSE, HOLBORN VIADUCT, LONDON, E.C.

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The Editor would like to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered by experts in the several departments. The desire is to help those who are in difficulty regarding the management of their poultry, and accordingly no charge for answering such queries is made.

The Annual subscription to the ILLUSTRATED POULTRY RECORD at home and abroad is 8s., including postage, except to Canada, in which case it is 7s. Cheques and P.O.O.'s should be made payable to the ILLUSTRATED POULTRY RECORD.

The ILLUSTRATED POULTRY RECORD is published on the first of every month. Should readers experience any difficulty in securing their copies promptly they are requested to communicate immediately with the Editor.

The latest date for receiving advertisements is the 20th of the month preceding date of issue.

The utmost care is exercised to exclude all advertisements of a doubtful character. If any reader has substantial grounds for complaint against an advertiser he is requested to communicate at once with the Editor.

A Step Forward in Laying Competitions.

In addition to the grant recorded in our last issue for a further Laying Competition at the Harper Adams College in continuation of that now closing, the Utility Poultry Club may be heartily congratulated upon obtaining a grant for a second Twelve Month's Competition to be held at Sedlescombe, near Battle, Sussex, in which a comparative test will be made between small and large flocks. This will be divided into two parts, the first of which is to be on the usual lines, that is, each pen of four pullets will be provided with a separate house and run, and the second will mass all the 128 birds that may be entered in a large house 40ft. by 20ft., divided so as to separate the light and heavy breeds. For the latter an acre of land is to be available as a run. This is on what is known as the semi-intensive system. Each competitor is required to enter four birds in both sections, so that comparative results may be attained. It will be valuable to have such comparisons especially in view of the present intensive boom. We anticipate that the small pens will make the better record as to number of eggs produced. That, however, is only part of the test to be made. What must be done is to consider cost of production in respect to equipment and labour involved. Commercially the small run system can never be profitable save to breeders. In fact all the Laying Competitions at home and abroad heretofore have not touched egg production as a market proposition. It is satisfactory to record that at last something is to be attempted in this direction, even though it does not touch the farm poultry side, which is of much greater importance. We hope that another year further developments will take place.

Also at Burnley.

Nor is this development restricted to the South of England. The Northern Utility Poultry Society, with its usual enterprise and without any help from public funds, commences on October 15th a competition on similar lines also extending over a year. In this case each competitor is required to enter eight birds, four of which will be placed in a smaller house, and the other four form part of the flock in a large semi-intensive building. So far as the last-named is concerned it is practically a duplication of the Sedlescombe test, save that the house is a little different in size, being 36ft. long, 15ft. wide, and 11ft. to the ridge. An acre of land is provided, divided into four equal runs. So far, however, as the smaller houses are concerned three lots of four birds, twelve in all, are to be accommodated in each, which is a distinct improvement upon the single pen arrangement, although we should have preferred to see twenty-four, as more nearly approximating commercial conditions. These series of competitions should afford comparisons which will be very valuable. The public spirit of the Northern Society deserves the warmest commendation.

Abnormal Prices and Consumption.

The year 1913 has been remarkable in many ways. Not least of these is the fact that in spite of a considerable advance in the volume of eggs imported, prices, more especially for the higher grades of home supplies and those from nearer sections of the Continent, have increased to an extent never known before. There is no doubt that retail prices of 2s. per dozen on the first day of September is a record, good for producers but unsatisfactory to consumers. Such, however, was attained in several of the leading markets. All over the country demand has been phenomenal. London has had an influx of foreign visitors almost beyond its vast capacities. Booming trade has enabled our own people to go forth seeking rest and change to a greater extent than ever. All the watering places inland and on the coast line have been crowded. In some cases accommodation was scarcely obtainable to late comers. It is stated that Ilfracombe has had this season thirty thousand visitors and that is representative of five hundred other holiday resorts. Producers within reach of these places have reaped a bountiful harvest. It is evident that here we have explanation of what is stated above. What will happen in the next few weeks no one can prognosticate. If only the hens of the country could realise their responsibility and duty, poultry-keepers would reap the benefit to an extent not experienced previously. Perhaps the owners may in process of time learn the secret

of winter production, but that time has not yet arrived. Meanwhile extraneous supplies are a positive boon and a blessing, which fact is seldom realised.

The English Leghorns in America.

The remarkable records made in the Missouri Laying Competition by the English White Leghorns entered has awakened a vast amount of interest on both sides of the Atlantic and the record is acting as a stimulus to American breeders. In an interesting article in the *Reliable Poultry Journal* for August, Mr. T. E. Queensberry, Manager of the contest, gives some particulars of these birds. He says that the English birds weigh one fifth of a pound more per bird than the Americans, so that they are not of the big type. They have larger combs and carry something of the Minorca character. Their eggs, however, which, averaging 2 ozs., are slightly smaller than those from their American rivals. The leading English hen laid 166 eggs in 197 days, whereas the premier American White Leghorn laid 121 eggs in the same period. Only one English produced less than 100 eggs in that time, whereas six others laid 166, 154, 153, 150, 144 and 135 eggs respectively. In seven months the ten English hens laid 1,338 eggs, not including a hundred which for various reasons such as being shell-less or they would have been still farther in front. A Buff Wyandotte hen is first in the whole competition up to May 31st and thus was one ahead of the most prolific English hen. She, however, was a solitary specimen.

Day Old Chicks and Eggs for Hatching.

Incidentally in Mr. Edward Brown's second article on Belgium in the present issue is mentioned what is undoubted danger in connection with the sale of eggs for hatching and baby chicks, namely, that as the vendors have not the responsibility for hatching and rearing the former, and rearing the latter, there is a temptation to take less care as to the vigour of the parents. In conversation with a gentleman recently who has studied these questions very carefully, he stated that, in his judgement, much of the weakness of and loss in chickens is mainly due to sellers breeding from young and often closely related birds. If the eggs hatch or the chicks arrive safely at their destination any loss following is attributed to bad management, whereas the cause may be inherent. The temptation to force for eggs early in the season leads to mating of immature stock, for numbers are what count. Whilst we should not accept the statement referred to without further proof, at the same time sellers of eggs and chicks should keep this question in view, for it is of considerable

importance, more especially if continued over several generations. That the conditions under which breeding stock are kept, the extent of their range, their age, and relationships must have a profound influence upon the progeny is unquestionable.

The late Mr. Robert Butterfield.

The death, announced recently, of Mr. Robert Butterfield recalls one who was a notable figure in the poultry world about thirty years ago, when he was a prominent exhibitor and perhaps the most successful commercial poultry man of his day. There was a measure of romance about his life which is worth the telling. Commencing his career in a humble position as a railway servant, he won his way upward, and later on came into money in a way with which we are unacquainted. Then he took Nafferton Hall where he set up a great poultry plant, spending money freely in purchase of his original stock, with which he did wonders, for he was a skilled breeder, knowing how to mate his birds and bring them to perfect condition for the show pen. Whilst he kept many varieties, probably he did most with the Plymouth Rock and Minorca, taking in the latter case the tide at the flood, for then the boom in the West Country breed was in full blast. He was a typical Yorkshire fancier, combining the old school with the new, for Mr. Butterfield was one of the great pioneers in sale of stock birds and eggs for hatching on a wholesale scale, a big advertiser at that period as the poultry papers of the time tell. The business done was enormous, necessitating the employment of two or three clerks. In many ways he was peculiar, specially in his negligence to answer letters. This even was extended to dealing with money received, as it is told that a visitor was astounded to see at Nafferton a big drawer full of cheques and post office orders, which he said he has been too busy to sign and bank. That he made a lot of money at one time was evident. Why his trade fell off and he gave up we have never heard.

Live Stock Improvement.

Things move rapidly forward in these days. The announcement that the Development Commissioners have recommended and the Treasury has sanctioned grants amounting to £37,000 to be used by the Board of Agriculture and Fisheries for improvement of the live stock of the country, will be generally welcomed. When we compare the number of animals in Britain with those found in some other countries, and the amount of attention given in the latter to the productive quality of the stock, it is evident that much remains to be done. So far as larger animals are concerned the lines of action are

fairly evident. When, however, we regard the place which poultry now hold and that which they are destined to occupy in the live stock of the country, it is apparent that they should share in any schemes which may be promoted. Such will not be the case unless a determined effort is put forth by those who are intimately connected with the Poultry Industry, in order that there may be submitted practical proposals with this end in view, otherwise all the money will go to larger stock. With the disappearance as a separate entity of the National Poultry Organisation Society, which has, we understand, been combined with the Agricultural Organisation Society, the initiative rests with the Poultry Club and the Utility Poultry Club, which societies have an opportunity that should not be missed to adopt a constructive policy in order to secure for poultry an adequate share of the funds now available.

The Drone.

A writer in one of the American journals, calling attention to the number of hens in the Laying Competitions which have proved barren or laid scarcely any eggs at all, says:

New breeds may come and new breeds may go, but the "Drone" goes on until man with common sense wisdom calls a halt and eliminates it and the methods which produce it.

This fowl is essentially an American product. Nowhere else in this wide world do we hear or read of it in such numbers as in America, because in no other country are such methods practiced which squeeze the very last penny from their puny carcasses.

Only an American dare make such a statement, and we think the writer does less than justice to his own country. Drones are found everywhere among poultry, and it is apparent that the tendency of forced methods and ultra intensive-ness is to increase the number of hens of small prolificacy. Exhaustion follows abnormal development, and there can be little doubt but that natural vigour is being sacrificed to an alarming extent. The whole question is one which demands attention.

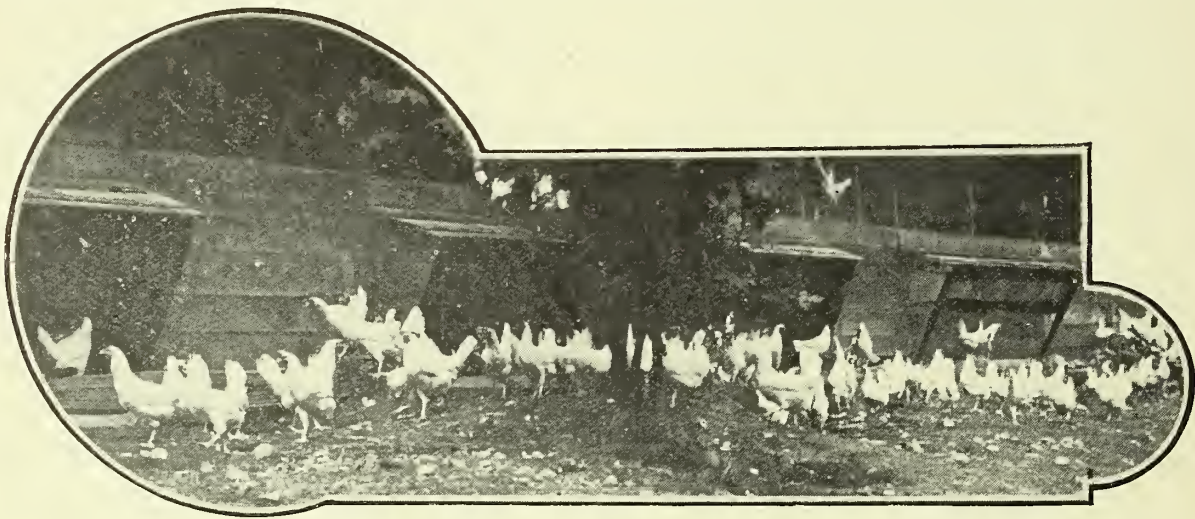
Irish Poultry Statistics.

The Agricultural Statistics for Ireland show that in 1913 as compared with 1912 there were 77,600 fewer turkeys, 93,359 fewer geese, 55,691 more ducks, and 290,886 more fowls, or a total increase of 175,618. The figures, however, must be taken in detail to understand the position. A surprising fact is that there is a decrease in all classes of adult poultry, as follows: Turkeys, 6,094; Geese, 866; Ducks, 42,783; Fowls, 95,871 or a total of 145,614, which means that the

breeding poultry was less in 1913 than in 1912 by nearly one per cent. What this means it is difficult to suggest. Probably it is merely one of those variations which we always find, as the limit of extension in Ireland has not been reached. Such reduction of the breeding stock is not satisfactory. It is in the young stock that the increase recorded is to be found. Young turkeys show a reduction of 71,506; goslings of 92,493; whilst ducklings increased by 98,474, and chickens by 386,757, the margin of increase being 321,542. If the decline in adults is made up by retention of a larger number of the youngsters as breeders, though the margin is small even in ducks and fowls, and non-existent in turkeys and geese, it may be made up. Otherwise we may look for a further decrease next year. The changes appear to be equally divided in the four provinces.

is held in reserve in case the scheme can yet be brought to completion. From what is here stated it is evident that the share of the Development Fund obtained for promotion of the poultry industry is very small. In the 1908 census of production the value of horses sold off the farms was estimated at £1,590,000 and of eggs and poultry £4,350,000. Yet the former has had a block grant of £50,000, and poultry about £750. Were the National Poultry Institute in being the inequality would be considerably reduced.

The Imperial Poultry Society of Russia at its Annual Meeting held June 11th to 24th, 1913, unanimously elected Mr. Edward Brown, F.L.S., President of the International Association of Poultry



A Flock of Heavy Laying White Leghorns.

[Copyright.]

The Development Commissioners.

In the third annual report of the Development Commissioners are several references to poultry, showing that this branch of live stock has received a measure of attention. In addition however, are references to the large schemes relating to live stock breeding, Agricultural Colleges, and Farm Institutes, in all of which poultry may be expected to share. So far as poultry are concerned, mention is made of the applications received from the Utility Poultry Club, one of which, *i.e.*, £200 for a utility poultry show, was refused. In the other case £500 was granted for the twelve months laying competition just concluded at Harper Adams College. The recommendations made as to the proposed National Poultry Institute are recorded, respecting which it is stated it is presumed that the committee have not yet succeeded in raising the sum required from other sources, which, we understand, represents the present position. The money thus allocated, however,

Instructors and Investigators, as an Honorary Member of the Society. This Society has been largely responsible for the development of the Poultry Industry in Russia, and was represented at the International Association Meetings held last year by Mons. B. de Gontcharoff.

Plucking live geese.

Further prosecutions by the Limerick Branch of the S.P.C.A. for plucking geese alive and the imposition of penalties upon the culprits, show that this barbarous system is still in operation. The time has surely come when fines are in vain, and more drastic measures should be taken. Moreover, the police authorities ought to take up the question, or pay the expenses of the society in such cases as those recently tried.

Experiment Stations in America.

The grants made from Federal funds of the United States of America in the current year to the state experiment stations amounts to 1,400,000 dollars (£288,000).

A STRICKEN POULTRY INDUSTRY.

Report upon an outbreak of disease among Chickens in the Malines District of Belgium.

BY EDWARD BROWN, F.L.S.

(Continued from page 544, Vol. V., No. 12, September, 1913.)

METHODS OF REARING.



FROM what was stated in the Belgian report, and also in the previous paragraphs, it is evident that the systems adopted in East Flanders have throughout been highly artificial.

That applies even to a greater extent in connection with rearing. In a few places, of which the Vicomte de Beughen's great establishment at Lippeloo is an example, this is not carried to an extreme. During the first six weeks the chickens are brooded in specially built houses, and have fair sized runs. At that age they are transferred to the woods, where they are accommodated in large runs and provided with roomy, well-ventilated houses. Such conditions do not afford any explanation of the mortality that has taken place, and the cause must be looked for in other directions. Even there, however, the massing of large numbers of chickens on the same ground year by year, although the earth may in the smaller runs be turned over from time to time, must in process of time have an adverse influence. The Vicomte informed me that he has discovered a method of treating the ground, which it is claimed will sterilise it and kill the ammonia. This is a secret preparation respecting which no information is available. I am not, however, very sanguine as to the permanent results. Its efficacy would require prolonged experimentation and careful investigation with a considerable amount of scientific research.

As a rule the methods generally adopted are much less favourable. The photographs already given show something of the houses and runs in use. For a small number of birds, whether adults or chickens, these could be used successfully.

Where the system has broken down is due to crowding great numbers on a very limited space. I was informed that in some instances the ground only allowed one square foot for each bird. Those were extreme cases. On some plants I have seen, probably the runs available did not give more than two square feet per inmate. It is not suggested that chickens may not be successfully reared under such conditions for one season, presuming that cleanliness is observed, and if the birds are intended for early killing. When these methods are continued year by year, and the same runs occupied successively as in the Londerzeel district, with practically no period of rest, the

earth must in process of time become little better than a manure heap. On one small occupation I visited near Londerzeel some attempt was being made to set up a rotation. The ground occupied was divided into four parts, each about 15 yards square. One section was planted in lucerne, and the owner was at work plucking plants which he threw to the birds, who devoured them eagerly. In the three runs occupied by chickens were about 80 birds ten to twelve weeks old. They looked healthy. For permanent occupation the proportion should be exactly reversed, namely, that the growing crops cover three runs and chickens one. Such would reduce the latter in number, but also reduce the risks of disease.

GLASS FRONTED HOUSES.

On many of the holdings, large and small, glass-fronted houses have been largely used for rearing chickens. Whilst in some of these the extent of glass is too great, as there is always a tendency to extremes in development of any system, for the rearing of table chickens, more especially in winter, they have proved valuable. How far the method can be carried remains to be proved. What may be excellent for young birds is not necessarily desirable as they attain greater age. We have to remember that brooding if continued too long, that is, beyond the period when absolutely required, is probably harmful, weakening the system at a time when a measure of exposure is essential to growth. The use of glass houses beyond the infantile period is really extending the time of brooding, and to that extent tends to degeneracy. It is to all intents and purposes a hot house system, which cannot be pressed beyond a point it should be our object to discover.

FEEDING.

The object of those engaged in this business is to produce large bodied, soft fleshed fowls, for which purpose the Malines fowl is eminently suited. Although it is thick in bone, as shown by the breadth of the shanks, the bone is porous and soft, so much so that it can be easily cut through when the bird is dead. In that respect it differs considerably from many other races. In order to attain the softness of flesh desired, soft food is fed from the outset throughout. Here we must remember that these birds are not killed as young chickens, but when they

are about six months old, at which time they weigh eight to ten lbs. As a consequence the risks attending continued forcing are much greater than when the duration of life is shorter. As a rule, more especially where the birds are reared in runs, the opportunities for exercise are very limited, which is emphasised by the nature of the Malines fowl, as it is not active in habit. The tendency, therefore, of using soft food almost entirely is in the direction of reduction of exercise, more especially under the conditions already named, and of reducing the powers of resistance to malign influences. Such a system may be successfully carried out for chickens that are to be killed at the pre-mature age. I am certain, however, that exercise is beneficial up to a given point, and the plan followed would be undesirable for those that are intended for reproductive purposes, that is, as breeding stock. What has to be guarded against is an accumulation of influences making for degeneracy. This fact has been ignored by the great majority of the breeders. It is customary on nearly all the best plants to rear all the chicks in the same manner and on the same food for the first three or four months, at which time selection is made of pullets to be kept as breeders. That is antagonistic to general experience. It is in the early stages that natural methods are of the greatest importance, that is, during the formative period. Were all the chickens raised on hardier lines and selection made of such as are to be killed, probably the latter would not be as fully developed, but vigour of constitution in the former would not be sapped as is the case of the opposite method. I am of opinion that it is in this direction will be found to a considerable extent the secret of the mortality among chickens in the two provinces of Belgium referred to, although other influences have contributed thereto. Whatever tends to destruction of natural vigour of constitution makes the subjects more amenable to attacks of bacteria and parasites. The alternative is that chicks intended for use as breeding stock shall be reared separately.

BREEDING.

From what has already been stated it is apparent that the system which has prevailed during recent years has had the effect of seriously weakening the stock. So long as the breeders were kept under natural conditions, given a large amount of liberty, and the chickens during the growing stage were allowed to wander in the woods, everything went well. It is probable at that time there was much less in the direction of in-breeding, as of use of debilitated stock, and the methods of rearing

did not tend to degeneracy. Rapid extension of the industry, bringing into it specialist breeders operating on intensive lines and smaller occupiers who, perforce, had to yard adults and chickens, led to ignoring the ordinary canons, and the chicks hatched were weakened. When, in addition, the system of rearing referred to in the last paragraph, as applied to breeding stock, has been general, it is apparent that the stamina and vigour of the birds have been steadily weakened. It is impossible to emphasise these points too strongly. They are within the experience of multitudes of individual breeders for many years, but are not sufficiently known, because the failures of isolated poultry-keepers are usually attributed to personal factors, and are not investigated. In the present instance we have a powerful object lesson. Over a considerable area what is practically the same system has been adopted by a large number of breeders, under similar conditions, though the operations have varied in extent. What has been an important industry is sticken disastrously. One of the most important points to be kept constantly in view in connection with any branch of domesticated live stock is maintenance of the constitutional vigour. Artificial conditions and methods ever tend to reduction in that direction, more perhaps in some breeds than in others. It only requires disregard of the principle here enunciated to bring down the whole edifice like a pack of cards. One of the leading Belgian breeders informed me that they were seeking to create a race of quick growing Malines, capable of being bred in confinement generation after generation. However desirable the object, I question its attainability. That is the way of exhaustion, for in the process economic qualities will be lost. Nature's limitations are drastic.

WINTER HATCHING.

As previously mentioned the Malines trade involves a considerable extension of the period of hatching. In fact only during the Summer is that process suspended. Without winter breeding, as in the case of our Aylesbury ducklings, the same measure of success would not be attained, as the birds which command the highest prices are those hatched at that season. It is evident that there must be greater risks in out-of-season hatching, more especially as young and immature pullets have to be mated in order to obtain early eggs and chickens, and the latter cannot be expected to have the same vigour as those bred from older stock. It was stated, however, that the mortality has been no greater among winter hatched chickens, though in that direction the evidence is conflicting, as in some instances the

reverse was reported. It is possible that there are several explanations, namely, that in winter fewer birds are produced, and therefore, the brooders, houses, and runs are less crowded than later on; that the germs, and consequently the embryos, in eggs after a prolonged period of laying, when the pullets are becoming exhausted, are weaker than was the case at first even with young hens; and that if the immediate cause of mortality among the chickens be as suggested, due to a parasite or to bacteria communicated to the egg by the hen, it may be that these are less active in younger pullets than will be the case later, or that they do not increase to the same extent in cold weather as when it is warmer. It is more than probable that all these influences are contributory. If this or any other like industry is to be developed successfully there must be winter hatching, for which breeding from pullets is indispensable. Eggs from such pullets, however, should not be used for producing breeding stock, but be kept for the one purpose.

houses, in many cases overcrowded and wanting in cleanliness, together with tainted soil, must result in disease in one form or another. It was reported that the mortality among chickens obtained from eggs which came from peasants was much higher than those from specialist poultry keepers, which is very suggestive, as the last named generally maintain their birds, save, perhaps, as to soil taint, much better than do the former. As proof of what is here stated can be cited the experience of one hatching plant, at which it was stated that eggs from some of the supplying farms yielded chicks which fell victims to a much larger extent than those from others. Enquiry revealed that at the former the methods adopted were less satisfactory in respect to hygiene. One of the most important evidences in favour of the suggestion that the cause of chicken mortality is due to pre-natal influences, that is to infection by the hen laying the egg, is that the use of absolutely fresh ground was not found to be protective. Birds reared under these conditions



A Smallholder's Cottage and Poultry Plant.

[Copyright.]

The house is made of concrete, which is claimed to be cheaper and more lasting than any other material.

HYGIENIC CONDITIONS.

So far as I have learnt there has been no attempt to enquire how far neglect of the principles of hygiene is responsible for the loss which has taken place. In fact, with one or two exceptions, this aspect of the question has not received consideration. Among a people whose housing arrangements are of a primitive type it is not easy to introduce improved accommodation for their live stock. That in a large number of cases the conditions are bad is unquestionable. Unsuitable and ill-ventilated

died to the same extent as those which were not so favoured, so it is stated, although on that point more evidence is desirable. Should this prove to be true generally the cause of such mortality must be sought for in other directions. One of the surprising facts, already referred to, is that the hens from which eggs are obtained may show no signs of disease, and are apparently healthy, although in some I noted evidences of anemia, as shown by paleness of face and comb. Professor Frateur's report shows that infection is present and develops later. We know,

however, that the powers of resistance in young birds is much less than in adults, and that what may be fatal to the former is often not immediately apparent in the latter, although in process of time evil results may follow. Upon this point, however, positive knowledge is wanting.

EGG FARMS AND HATCHING PLANTS.

That there are risks in separation of the work of producing eggs for hatching and day-old chicks from the rearing we have evidence in the United Kingdom and elsewhere. Breeders who are not concerned with what takes place after the egg is laid or the chick sold, are often tempted to enhance their returns by forcing production. It is the number of eggs or chicks sold that make for profit. So long as the eggs are hatchable or the young birds arrive at their destination safely, that is all which concerns them. They lose nothing if the chicks die later, save in that purchasers will drop off if this reaches an extreme point. Hence they are content to mate up immature birds and perhaps take chances in the direction of in-breeding which the man who is responsible for rearing would not attempt. Probably, also, such poultry-men carry to an extreme the yarding of their stock. I do not suggest that there has been in Belgium any desire to adopt bad methods. The rapid growth, however, of the table poultry industry in Flanders and Antwerp, the pressure of a huge demand, and the fact that these intensive methods were new and not in conformity with such as had generally been employed, have blinded those concerned to negligence of accepted systems, more especially as they were immediately successful. Unless and until breeders of every class realise the essential importance of conserving the natural vigour and adopt methods to that end, the ultimate result must be serious and entail heavy loss.

CONCLUSIONS.

Professor Frateur's report has now come to hand and is of great importance. I must, however, leave that for further consideration. This does not affect the impressions obtained as a result of the present enquiry, which deals specially with methods in vogue, rather than the nature of the parasite which has wrought the havoc, except that it reveals how widely the breeding hens are effected. Later information indicates that the epidemic is more general in Belgium than was at first realised. We may assume that this parasite is a result of the conditions, or at least that these have led to its propagation. The investigation referred to should prove of the greatest value and is necessary to complete study of the problem. My conclusions are:

(a) That the methods adopted in respect to breeding stock and chickens alike have carried intensiveness to an extreme point, without ordinary precautions for maintenance of constitutional vigour in the breeding stock and avoidance of earth taint during the breeding and rearing periods. In connection with the last-named, concentration upon the same ground without change or distribution is fatal to success. Until birds intended as breeders can be raised and kept on range there can be no permanent improvement.

(b) That the use of yearling cockerels and pullets, whilst necessary to obtain eggs for hatching in winter to meet the early demand for birds, has led, where such immature breeders are used, to the production of stock birds showing marked race degeneracy, the effect of which is seen in a high average mortality in chickens bred from them;

(c) That there are evidences of continued in-breeding, and that equality of conditions has contributed to reduction of virility in the chickens;

(d) That the rearing of chickens intended to be used as breeders under forced and unnatural conditions is largely responsible for the losses which have taken place, and is destructive of the vigour which should be carefully conserved during the growing period—more especially as the feeding does not stimulate exercise;

(e) That the methods adopted have tended to non-hygienic conditions in houses and rearing sheds, and that undue concentration in small runs and crowding on the land have resulted in tainted soil to a very large extent; and

(f) That all these methods in combination have offered favourable conditions for the development of injurious parasites, which the reduced vitality of the birds has been unable to combat, leading to great mortality in the chickens.

"Russet" Flavoured Eggs.

"An egg," explains an admirable essayist down in Kansas, "is composed of four parts—the shell, the yolk, the white, and the price. The shell is very fragile, like one of the Ten Commandments, and can be broken without an effort. The price is the biggest part of the egg and its greatest protection. The price alone has saved millions of innocent young eggs from being boiled and eaten. Eggs are very delicate, and spoil very quickly. When an egg spoils it puts its whole heart into the performance. One can tell a spoiled egg as far as it can be seen, and with one's eyes shut at that, if the wind is in the right direction. There was a time when everyone ate fresh eggs in summer and went without in winter. Nowadays, however, business methods have led men to buy all the fresh eggs in summer and store them until winter, when they have acquired a rich russet flavor.—*Farm Poultry*.

PROGRESSIVE COMMUNISTIC EFFORT.

The Northern Utility Poultry Society forging ahead.

Prospects for the Twelve Months Laying Competition.

THE fact has often been mentioned before, but repetition will do harm, that the utility poultry industry has suffered very much in the past from a lack of public support. Practically all advancement has been brought about by private effort, and, unfortunately too little of this has been seen. Those, however, who have been sufficiently public spirited to give time, thought, and money for the promotion of what will undoubtedly become a national asset in the future, deserve very great praise.

The experimental side of an industry appeals to many people, but few are able to devote the time and money that it calls for, yet the ultimate effect of such work can hardly be overestimated.

industry in their district, and as their ideals have always been progressive they have achieved results that are little short of wonderful.

Realising that the day of the short period laying competition is over, it has been decided this year to run the test over a period of twelve months, and arrangements are well forward for a beginning on the 15th October, 1913.

The great point of discussion has been as regards finances. A competition cannot be run for nothing, and a society that is composed of working poultry keepers must consider very carefully the whole question of ways and means. The capital outlay is of first importance; then the question of manager's salary and work-



Hard at work erecting pens for the Burnley Laying Test.

On the left is Mr. Dixon, the Manager, and Mr. Sharpe - a stalwart of the N.U.P.S. - is driving.

Copyright.

It is not often realised, but a few individuals, if working together, can do great things for the promotion of an industry, and this we think is proved conclusively by the highly successful results that have attended the endeavours of that small band of workers who together form the organisation of the Northern Utility Poultry Society. For twelve years now they have been labouring side by side, to develop the poultry

ing expenses must be considered. This takes some doing for a society with a membership of only some two hundred, but it has been successfully accomplished.

Another innovation has been made this year, namely, that the pens are to be erected on a small holding rented by the society. The Burnley corporation has divided part of the Townley Estate, which they purchased some

time ago, into a number of small holdings. The one that has been secured by the society is three acres in extent, is about 350 feet above sea level, and has a gradual southern slope. It is good meadow land and has never carried poultry before. There is a first class cottage on the holding which will be occupied by Mr. Dixon, the manager.

The competition will be run in two sections. One section will be placed in small houses in lots of twelve birds, with a grass run allowance of 30 square yards per bird, and the other section will be housed on the semi-intensive system in a two compartment house—this to allow of running sitting, and non-sitting breeds apart. Each compartment of this house has two grass runs each one quarter of an acre in area. The whole house is 36 feet long by 15 feet wide, and will accommodate 160 birds.

in the small houses. The entry fee for the open section is £2, and for the local section 10/-, but a local competitor can—by payment of £2 10s.—send 8 birds, 4 of which will be run in both the open and local sections in the small houses, and the other four in the large house. This arrangement has been made so as to encourage the small local poultry keeper to enter both sections and yet only to have to send eight instead of twelve birds. This has been accepted by four local representatives, therefore a total of 400 birds has been entered.

The committee believe that the names of the entrants in a laying competition should be kept either absolutely secret or made public, and, therefore, they have decided to publish all names and addresses from the beginning. It is difficult to keep the names a secret, and it has not always been successfully done in the past,



The Site of the Laying Competition.

The pens are not yet finished at Burnley, but the preceding illustration shows that work is progressing. All will be in readiness for 15th October, 1913. [Copyright.]

The test includes open and local classes. For the former there are 40 entrants, and for the latter 24. In the open classes 8 birds are to be sent by each competitor, four being housed in the small houses and the remainder on the semi-intensive system in the large house. In the case of the local class entrants—that is those within an 8 mile radius of Burnley—only 4 birds are to be sent, all of which will be housed

hence this new move on the part of the N.U.P.S. We have remarked that the question of finance has been worrying the committee for some time past, so a word or two as to how this point has been solved should prove of interest.

The capital value of the plant is £200. All of this sum has not to be raised, since when the energetic hon. secretary of the society, Mr. Charles Longbottom, won the £50 prize offered

by the *Illustrated Poultry Record* some years ago, he turned over the whole sum to the society for the purchase of houses. These are still in capital condition, and therefore, only some £150 has had to be secured. It is unnecessary to go into detail as to how this has been accomplished, but one instance will suffice to show the keen interest taken by the members of the society. At the meeting at which the scheme was outlined upwards of £70 was promised by those present.

This is the stuff of which northern men are made. If they cannot secure support from public funds they are still undaunted and they just set themselves to pay the cost out of their own pockets. It is a pity there is not a little more of this spirit manifested. So much for the capital expenditure.

The running expenses are heavy. In the first place the rent of the cottage and holding is £40; in the second the manager's salary is £80, and thirdly the cost of the food for 400 birds for twelve months will amount to about £130, allowing 1½d. per bird per week. The feeding, however, will not cost quite this amount since the society purchase their feeding stuffs in bulk

not only for the competition but also for their members. We may take it that the cost will be in the neighbourhood of £250 for the year. In addition prizes to the value of about £30 are being offered. A number of these, however, are being given, hence the cost to the society will not be great.

A report will be issued each week, and the two local papers have each offered a column free for this purpose. The cost of the final report should be covered by advertising. As there are no funds available for the payment of clerical work this has been undertaken by the members. The enormous amount of work this entails can hardly be realised by those who have not participated in the work.

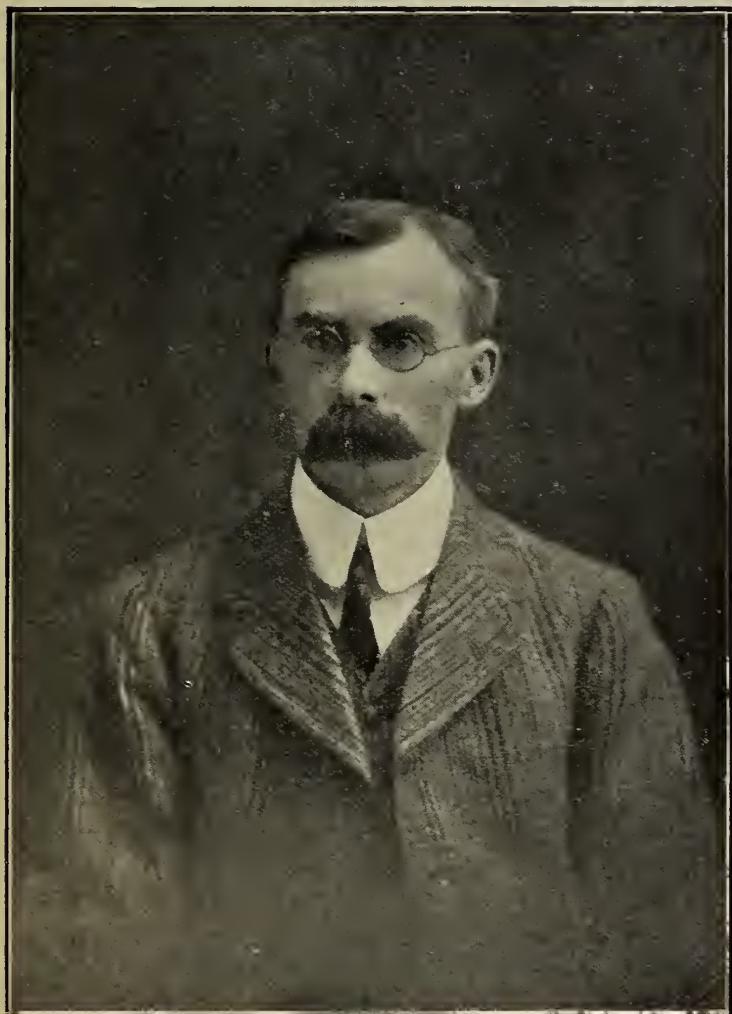
Burnley is one of the best markets in Great Britain, and the average price of eggs for the twelve months is about eight to the shilling. In making their calculations the committee are allowing nine to the shilling. It is hoped that an average of 140 eggs will be laid per bird and these at nine to the shilling will realise over £300. The margin should be sufficient.

It is not our vocation to prophecy, but we believe the competition will pan out successfully from a financial point of view, and we confidently expect that the N.U.P.S. will finish up on the 14th October, 1914 with the value of the plant to the good, and no debts. A small number of the members have formed a guarantee fund but we do not anticipate that they will be called upon to make up any deficit.

It is impossible for the society to carry out any other tests besides that of laying, as this would be too great a strain on their finances, and yet the opportunities are there. In our opinion it is a great pity that the N.U.P.S. should have to undertake work of such public importance without aid from public funds. We are certain moreover, that an application for a grant to the Development Commissioners, through the Board of Agriculture, would have been kindly received, and would have most likely been followed by substantial help.

As we pointed out above for too long have we had to rely upon individual effort for the advancement of the industry, and the time has come when successful societies should be recognised and aided from the public purse. We hope that before another year has passed this society will apply successfully for a grant from the Development Commissioners.

In conclusion we can only say that we believe it will be found that this competition will be the most successful ever held, and we know all of the members of the N.U.P.S. will agree with us when we say that the praise will be largely due to Mr. Charles Longbottom, the secretary of the society, and to Mr. Dixon the Manager.



Mr. C. Longbottom.

The hard-working and energetic Secretary of the N.U.P.S.

THE CULT OF THE HEAVY LAYER.



URING the past few years much has been written on the creation of heavy egg laying strains, and by a variety of writers. The breeding for increased egg production is a craze on the part of some, but an ambition on the part of others. By this we mean that the latter realise the limitations as well as the possibilities of developing fecundity, whereas the former do not. A lively and real appreciation of the dangers of breeding for high, excessive and abnormal egg laying is necessary if results are to be profitable and lasting.

A large number of breeders do not appear to take into consideration the fact that there must be a limit in the egg capacity of a hen beyond which

of the stock from the point of view of egg production is speedy and complete. Breeders would do well to regard this fact, and even if the building of their strain takes longer they should never overlook the question of maintaining the vitality and stamina unimpaired.

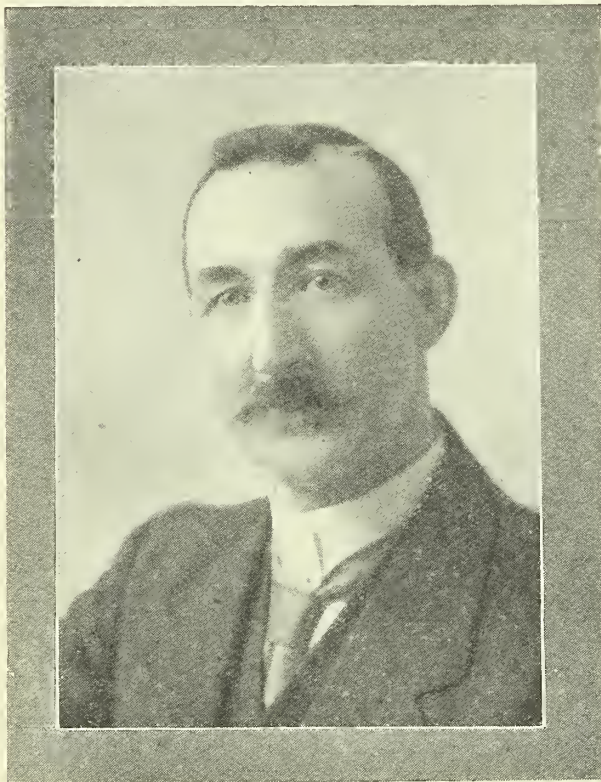
As being one of the most successful breeders of utility stock we thought that Mr. Tom Barron's ideas on the subject might prove of interest to our readers. To this end we visited Mr. Barron at his poultry farm at Catforth, near Preston, a couple of weeks ago. It is hardly necessary to remind readers that Mr. Barron's reputation is world-wide as the producer of some of the finest egg machines that are known.

We were delighted to find that this breeder has ever kept before himself the fact that high vitality and high fecundity go hand in hand, and that he has always been willing to sacrifice a few eggs per annum if by so doing he could increase the stamina of his birds.

Mr. Barron's success is due to trapnesting, and he, at any rate, is a firm believer in this method of determining the laying capacity of his birds. The use of trapnests, however, is not everything, since it depends entirely on what use is made of the records secured under this system. For the past decade these nests have been used and with both White Leghorns and White Wyandottes the pedigree of the present day birds goes back over the whole period.

The first lesson learnt was that birds vary very considerably in their individual records. It is no uncommon thing to breed pullets that will lay up to 250 eggs during their first year, but on the other hand it is found that a number of drones occur regularly in the flocks.

The second conclusion arrived at by Mr. Barron was that the females selected for the breeding pens play only a secondary part in the establishment of a laying strain. The more important factor is the male bird. It is interesting to note in this connection that similar conclusions have resulted from the experiments at Orono, Maine. The report issued just recently by Dr. Raymond Pearl of that station indicates exactly the same result. Although certain facts have been elicited, both Dr. Pearl and Mr. Barron would be amongst the first to own that even yet very little is known on the whole question of breeding for increased egg yield. The evidence, however, appears conclusive that right lines are being followed by both breeders. At the Catforth Poultry Farm for many years past it has been a rule to use only those males which are the direct progeny of hens with a record of 200 eggs per annum and over. The mating of these birds with selected females has resulted in placing Mr. Barron at the head of the list of winners in laying competitions, not only in this country but also in America.



Mr. Tom Barron,
of Catforth, near Preston.

it is folly to endeavour to go. It is impossible as yet to say at what figure to place this limit, whether it is 180, 200, or 250 eggs per annum, and it will only be by repeated and lengthy tests that the exact point can be located.

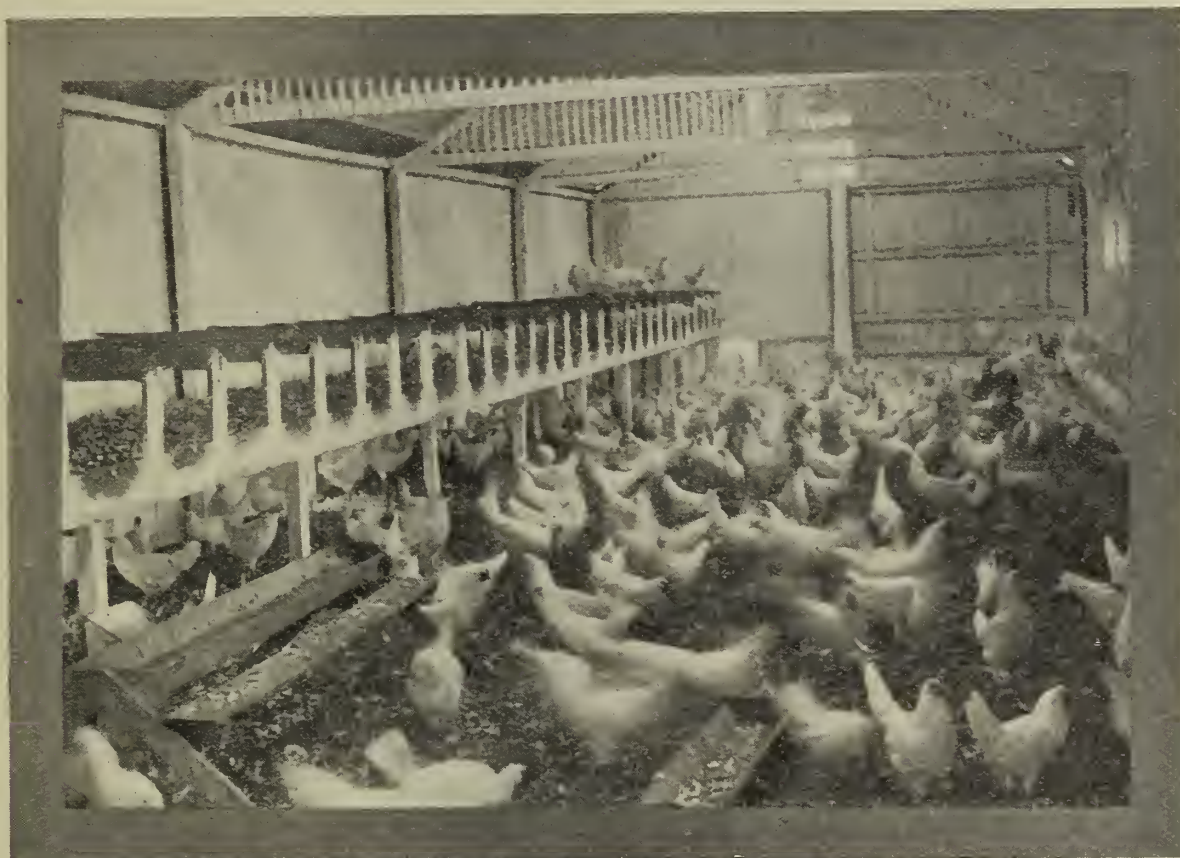
As far as we can gather from the experiments that have been conducted in the past, the evidence appears to indicate that the method employed in the building up of a laying strain has almost everything to do with the fixing of this limit. Too rapid development of the functional properties of the egg organs will undoubtedly lower the limit, hence too hasty methods in this direction will ultimately defeat the ends of the breeder. Failure is brought about owing to loss of vitality and stamina. Once such a loss is noted the deterioration

We discussed fully the point of limitation in fecundity, and Mr. Barron gave it as his opinion that if he has not yet reached this point he is not very far away from it. We will have occasion later on to refer to some of the records of the competition birds, but at this point we may mention that one bird—No. 4—in the winning pen at the Storrs test has laid 229 eggs in 42 weeks, and that another bird in the same pen—No. 2—is within a few eggs of this number.

The great question to consider is whether this degree of fecundity can be increased without passing into the danger zone. Whether the addition of a few more eggs per annum may not impair the vitality and stamina to such an extent that deterioration may set in with rapidity. To indicate the care that has been taken in the past to maintain the strength and vigour of the stock we may

out that even at the expense of ten eggs per hen per year, the high vitality will be kept up.

A test has been carried out this past season with a few of the pens on another point of interest, but it is too early as yet to say with what results. We have remarked that the male is the more important factor in the breeding pen and that the male should be the son of a bird that has laid over 200 eggs during her first year. No one can tell, however, whether brothers from such a heavy laying hen both possess the power of transmission of the high fecundity of the mother, and hence two males—brothers—have been used to each pen. Each male runs with the hens for a period of five days, resting in confinement for the same period of time. One effect of this is already noticeable in the increased fertility and hatchability of the eggs thus produced. By the use of two brothers to lead these



Interior of Mr. Barron's Intensive Poultry House. It is 72 feet by 18 feet and accommodates 400 layers.

Copyright.

mention that the hatching results during the past season show 75 per cent. of chickens from all eggs set. Hatching begins in February and the last batch is brought out about the middle of May. The incubator capacity is 4,000, hence the number of eggs incubated is considerable. No fertility test is made, the results in Mr. Barron's case convincing him that it is unnecessary labour, and, therefore, it is dispensed with altogether. If there was any great falling off in the stamina of the flock such a percentage would not be realised. Special precautions, however, are being taken to maintain the vigour of the flock, and such mating is to be carried

test pens it is hoped to overcome any variation there may be in the transmission power of the males.

The value of such a breeder as Mr. Barron is very great to the utility poultry industry as a whole. His chief place in the scheme is to produce cockerels, the introduction of which into the yards of ordinary poultry keepers will have an enormous effect on the egg yield of the resulting progeny.

The prime necessity of to-day is to increase the average egg yield of every female kept in the country, and such stock as Mr. Barron's will have a marked effect in this direction. No one certainly

has done more for the industry than the owner of the Catforth Poultry Farm.

We do not propose to describe the farm in detail since this would serve no good purpose, but there are certain points in the management to which

with biscuit meal, ground oats, thirds and bran. This food is given, together with the mixed grains, from the time the chickens are two weeks old until about one month before they reach laying age. No green food is given as the grass runs are considered ample.

The adult feeding is equally as simple but equally as efficacious. Mr. Barron does not believe in a change of diet though he is a firm advocate of a mixed diet. First thing in the morning a mixture of a variety of grains is fed in the litter and in the evening a soft mash composed of $\frac{1}{3}$ bran, $\frac{1}{3}$ biscuit meal and $\frac{1}{3}$ ground oats and thirds, with perhaps a little clover meal, is given. Green food is only fed from November until May or June and the only substance used is mangels. About thirty tons are fed every winter.

In the larger house, where the birds are kept on the semi-intensive system, hopper feeding has been added. This house is 72 feet by 18 feet and accommodates 400 birds. The dry mash consists of 3 parts bran a 1 part crushed oats, and this is given in addition to the wet mash and the grain.

As the figures have been published elsewhere it is unnecessary for us to give details as to the successes attained by Mr. Barron's birds. We may perhaps mention the fact that his pens head the Missouri as well as the Storrs laying competition at the end of 42 weeks, and it seems probable that he will win out at the end of the twelve months. The ten birds at Missouri have been sold for £100 and the five at Storrs for £50. These are high prices for utility stock, but they are worth the money.



The best bird in the Storrs Laying Competition.

No 4 in Mr. Tom Barron's leading pen with a record of 229 eggs in 42 weeks. *Copyright.*

reference must be made.

The poultry section of the farm has an area of some 13 or 14 acres and about 2,000 head of poultry is kept. Eight cows are kept, the skim milk from which is used exclusively for the fowls. This is the only form of animal food fed on the place, and judging by Mr. Barron's results no better material could be used. Proper feeding is essential if eggs are to be produced, therefore we will deal with this more or less fully. For the first two weeks the chickens receive a dry chick feed, after which they are given one feed of soft mash a day, namely at noon, supplemented by dry chick feed and mixed grains morning and evening. All hard food is fed in the litter. A brooder house fitted with sectional foster mothers is employed for the first week, when the youngsters are removed to the rearing field and kept in small houses in which are placed hot air brooders. These are of a simple form, the temperature of the sleeping compartment being kept up by the direct heat from a guarded lamp.

The soft mash is prepared as follows:—Rice is steamed in skim milk until soft when it is mixed



Sister of the leading bird. *Copyright.*

No. 2 in Mr. Tom Barron's pen in Storrs Laying Competition, with a record very little short of No. 4.

ON THE MAKING OF NEW POULTRY.

BY J. STEPHEN HICKS.

IT is extremely doubtful whether there is sufficient room in the fancy to-day for more breeds of poultry, not to mention the fact that the chief difficulty would surely lie in the absence of any really fresh characteristics in such new breeds. Let it be understood that there is a great difference between the meaning of the words "breed" and "variety"—a variety being merely a branch of a breed, the parent tree. However this may be, the task confronting one who sets out to manufacture a new race of poultry is no light one. Years and years of toil and disappointment lie before him, while the unwelcome truth must be faced at the start that unless he is prepared to spend money and brains at the end in booming his production, and unless that production contains striking utility features, he is far more likely to drop money on his venture than to make any. Let us see what is demanded of the originator by the Poultry Club before its Council will admit a new breed or variety to its Standards of Perfection. First and foremost there is the stipulation that at least fifty per cent. of the progeny must be true to type and colour, *i.e.*, they must possess the general characteristics of the breed; now this is in itself a most stringent regulation as to the first part, containing, however, ever so many loopholes in the explanatory part of the sentence. It is probable that several varieties have been admitted to the standard at a time when fifty per cent. of the progeny certainly did not come true to type and colour; consider the blue sorts that, even when fully established, sport blacks and splashed whites regularly the extent of forty per cent. or thereabouts. Then again, new breeds are admittedly lacking in type; however, the main idea of the Poultry Club is evidently this: if you have manufactured some birds which you intend shall possess leafcombs, spotted plumage, and an upright carriage, you must be able or prepared to swear that at least half of the chickens you bred this year do possess combs something after the style of a Houdan's combined with a more or less dappled feathering and a general appearance somewhat similar to one another. Of course, with an entirely new breed you have a free hand as to what fashion and make it ought to be, and therefore the worthy gentleman to whom you introduce it will be quite in the dark as to what a representative specimen should resemble, but with a mere variety of an existing breed, your hands are tied to a certain extent. You cannot, for instance, expect the Council to pass your striped Wyandottes if you produce them with

feathered legs, nor similarly would your pink Orpingtons find favour in their eyes if Yokohama-tailed; this is covered by the clause stating that in the case of a new variety they must conform to the character of the breed of which they are a variety.

"In the case of a new breed the fowls must possess distinct characteristics"; this means that it will not do to hash up an old breed, slightly altered, under a new name, though, sad to relate, this has undoubtedly been done in the past. What is a distinct characteristic? Well, the laying of parti-coloured eggs, the possession of six toes, fantails, cube combs, pea-green plumage—these would be distinct characteristics certainly, and such as (luckily) we are never likely to see. At all events your new breed should be novel in one or more features, and if you have been able to work in its composition some of the blood of that weird cockerel brought over from North India by your cousin some years ago, so much the better, for then you can call the breed by some such name as the Ticked Himalaya. Let us return, however, to plain facts and the Poultry Club Regulations: the next requirement is that specimens must have been exhibited at such shows as the Crystal Palace or Dairy; this is, of course, quite simple, and merely a matter of entry fees and the rest of the showing formula; it does not necessarily matter whether the birds win or not so far as admission to the Standard is concerned, though it will be just as well to decide upon the cognomen of your novelty before introducing them to the general public, because, should any interest be created by their appearance it will help if the new name comes more familiarly to the mouths of the Councillors who finally examine them.

You are also required to produce at the meeting of the Council both the male and female specimens of at least two generations, in order that the members present may inspect them to determine whether or no there are thoroughbred characteristics in them; this, of course, means that you must bring a cock, a hen, a cockerel, and a pullet, and it will be a strong point in your favour if the two latter birds are an improvement upon the preceding generation, and similarly it will go against you should they be the reverse.

But this is not all: you are now required to describe the breed with particulars of its origin, and a note of the percentage of chickens that come true to type and colour; this must be presented as a "sworn statement" (presumably

delivered before a notary) and a suggested standard and scale of points must be drawn up and presented at the same time. Finally, if upon due consideration of all things the Council is satisfied that the breed or variety has reached a pure-bred condition a majority vote of at least two-thirds of those present shall admit it to the standard.

In an imaginative flight let us follow the building up of some new breed, using what might be the description of the producer, when he brought his birds before the Council for admission.

"My Phrygian Meadow-Sweets, gentlemen, were produced in the following way. Ten years ago, while taking holiday in rural Derbyshire, I was much struck by the appearance and utility properties of the neglected Redcap which flourishes sparsely in that county alone. At the same time the beauty of the Meadow Sweet then in flower so took hold of my fancy that I determined to graft as near a likeness of the flower as possible upon the plumage of a new race of poultry to be descended from the Redcap. With this end in view I took home with me a cockerel and three pullets. The former I mated to White Wyandotte hens, while the latter were put to a White Dorking cock. The progeny from the first mating were all useless save for one cockerel which I preserved as its breast was more or less regularly patched with white; from the second mating I obtained several pullets fairly evenly mottled with white, though not in the least resembling Meadow Sweet. Next year the half-bred cockerel was put back to the Redcap hens, while the Redcap cock was mated with the mottled pullets. Results were again disappointing inasmuch as very little white was apparent in most of the progeny from either pen. At this juncture a friend returning from the wilds of Phrygia, brought with him a native cock marked on the breast with an almost perfect reproduction of the flower I required; this bird, however, possessed a peculiar sort of pea-comb, was tall and ungainly in shape, and had black legs. Mating him to the best coloured pullets I obtained some well-marked, if awkward, chickens, and it was after the results of this pen were seen that I decided on the standard at which I meant to aim in my new breed. The comb, you will observe, is of the raspberry type; the shape something between that of a Dorking and an Old English Game; the legs a mixture of white, green, and yellow; the cock to have a single bloom of Meadow-Sweet on the breast, the remainder of his plumage being black, while the hens also possess an extra bloom on the back. Into the history of my remaining matings it is unnecessary to go fully, sufficient to say that the Phrygian male was of tremendous

help to me in rearing good markings, while being a drawback as regards his type, and by a series of intermatings and breeding back I was at last able to evolve specimens as good as these before you to-day, reproducing themselves fairly consistently, and you have my sworn statement gentlemen, that fifty per cent. of my Phrygian Meadow Sweets to-day come true to type and colour.

Some such account as the foregoing would be expected of the originator of any new breed of poultry, and if—to continue this imaginative case—the four birds produced all displayed these original and distinctive markings, and seemed moreover, to belong to one another, and the same family tree in their shape, size, and general aspect, there is little doubt that they would be admitted as a new breed; if, on the other hand, the Phrygian Meadow-Sweets on view were dissimilar, very vaguely marked, and obviously mongrels in the main, an adverse decision would be given.

The market for new breeds and varieties is not what it was; it is a trifle overstocked as it were, and it would take a remarkably astute man to make a fortune, or indeed a competence, in that direction nowadays. Still, the field is open, the thing has been done successfully in the past, and the public is ever anxious to try something new. Personally, however, we do not agree with the view of those who submit that the poet was referring to new races of poultry when he wrote "Let 'em all come."

A Heavy Loss.

Mr. A. S. Duclos, of Edmonton, Alberta, Canada, is responsible for the statement made at a meeting in that province that "Four million cases, or 120,000,000 dozen of eggs were produced in Canada during 1912, and of these the monetary loss was \$3,400,000 (£680,000) through breakage and eggs going bad." He further stated that "the produce men would like to see a standard for eggs as for grain or apples. A business which amounts to \$48,000,000 (£9,600,000) annually, as did the egg and poultry business is surely as worthy of proper regulation as the apple trade."

Fecundity in fowls.

The *Journal of the Board of Agriculture* for June contains a summary of Dr. Raymond Pearl's paper on this question recently published.

Preservation of eggs.

A new method is recommended by *Revue de Chimie Industrielle* of Paris. The eggs are sterilised by a 0.2 per cent. solution of fluoride of silver, and then coated with a fatty preparation made as follows: Earth Nut Oil, 14 gr.; Palm Oil, 20 gr.; Coconut Oil, 16 gr.; Prepared Lard, 47 gr.; Spermaceti, 2 gr.; Trioxymethylene, 1 gr.; Powdered Thymol, 0.05 gr. It is claimed that the eggs retain much of their new laid character.

THE BLEACHING OF FANCY FOWLS.

BY A NON-EXHIBITOR.

THE question of bleaching fowls for exhibition purposes is one that, of late, has been exercising the minds of poultry fanciers in this country, although during the "off" season—when shows are few and far between—not a great deal was heard of it in the Fancy Press. On the other hand it has aroused a considerable amount of discussion across the Atlantic, and quite a lively controversy on its merits or otherwise has been carried on in the American Poultry Papers. I am told that over there at one time the practice of bleaching show birds was in vogue to such an extent that fowls so treated ended their public career for the season after they had been exhibited at three events. How much truth there is in the

be remembered, had the credit of being a very wise creature. Admittedly it did not talk—it could not. But, said the owner, it thinks a lot! Just so. It is time, however, that we stopped thinking so much and got to open discussion. Bleaching is practised in the Fancy, and of this there can be no shadow of doubt. I do not go so far as to say that all of the winning fowls of certain varieties have been so treated, or even that it is essential to bleach a bird to enable it to score full points for colour. Nevertheless, some fowls have been under the operation, and the proof of this is in feathers—taken from prize winners—which have been put to an infallible test.

To bleach a bird for the purpose of improving its colour for sale or for exhibition purposes comes



An Intensive Poultry House.

In the N.U.P.S. laying test at Burnley 160 birds are to be housed on the semi-intensive system. This house has been specially designed for their accommodation. [Copyright.]

statement I am not prepared to say. I have not visited America, but the information was given to me first hand by a gentleman who has made more than one visit to the United States in the interests of the Fancy, and one, too, who did not hesitate to tell me that he had tried his hand at bleaching!

Be that as it may, it is folly to turn a deaf ear to those who say that bleaching is resorted to in this country. It is, and has been for some time; and this I know as a frequent visitor to poultry shows, although few, if any, exhibitors will admit it. I am afraid that as a class English fanciers greatly resemble the pitman's parrot. That bird, it may

within the meaning of that expressive word "Faking." Let us get this firmly fixed in our minds. To say that a chemical agent can be employed as part of the preparation permissible and necessary to get fowls into show condition, as some exhibitors have contended, is entirely wrong. It is no more legitimate "dressing" for the show pen than is cutting the side sprigs from a bird's comb, dyeing faulty coloured feathers, or removing the spurs of an old cock. It is "Faking" and nothing else, in that it gives the specimen a false value. And as such it should be put down with a firm hand.

Some fanciers appear to imagine that bleaching is serviceable only for fowls which are cream white or those whose plumage is said to be "sappy." One even went so far as to say that by no artificial means whatsoever can straw-coloured, sunburnt, and rain-damaged specimens be made a pure white. He wrote in ignorance! I have seen such birds bleached, and every particle of the stain removed. In the hands of an expert—there is, after all, something of an art in doing it—it is surprising what can be accomplished.

I have said that this bleaching of prize poultry has been going on for some time. It has, although it is only recently that much has been said of it. The process was not unknown among exhibitors of Buff fowls, and Cochins as well as the more recently introduced Orpington. Black was "bleached" out of the tails and flight feathers. At present, however, since solid buff fowls are almost as plentiful as the sands on the sea shore, one's chief concern is with white birds. Although it is only since the White Orpington has come so prominently to the front that someone has "given the game away," it was in vogue long before this variety was known or taken up as a fanciers' fowl. White Leghorns were the first breed to my knowledge which were subjected to the hydrogen peroxide method of bleaching. White Wyandottes have been so treated, as have White Plymouth Rocks and White Orpingtons. And, no doubt, White Dorkings would have been done had the variety possessed anything of a vogue. It was the insane craze for colour that set the fashion.

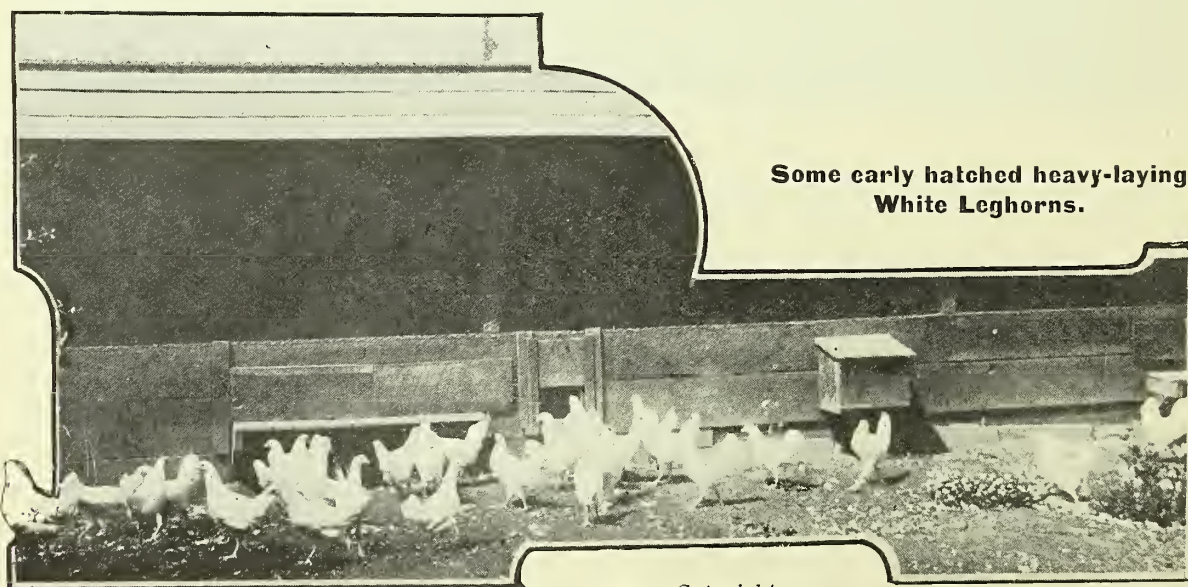
The White Orpington, it is as well to remember, is comparatively a new breed, more so in its present form than the Wyandotte. Those who are breeding it or have bred it must know that it is the exception rather than the rule at this stage in its career for even the best matings to produce a large percentage of really pure white male birds. One fact in con-

nection with the variety must not be overlooked, viz., that the White Orpington is not a true albino but a white fowl resulting from the union of other colours. The true albino is of a weakly disposition, whereas the White Orpington is one of the strongest fowls existing to-day. It has always seemed a pity to me that so great a craze has existed among fanciers for the dead white, because it is not a sign of hardihood.

It is not my intention here to go into the method of bleaching white fowls by hydrogen peroxide as the chief agent. This "secret" has been disclosed long since, and must now be known to everyone who is anyone in the Fancy. The process, it is generally considered, has the effect of bleaching the plumage without leaving any trace of the bleaching agent having been employed. It is not so. It is possible to detect hydrogen peroxide, and although the chemical test cannot be used direct to the bird, it is easy to remove a feather for the purpose.

Let me here repeat, however, and with emphasis, I do not wish it to be inferred that the best Whites of any breed have been or must be subjected to some form of bleaching ere they are fit to merit the term "as white as driven snow"; or even that "stay whites" cannot be bred in a natural way. But that some white fowls have been bleached to improve their appearance in the show pen is an undoubted fact. That being so, therefore, it is hardly wise to shut our eyes to it, or to pooh-pooh the idea as child's talk.

Knowing as much as I do it may be thought that I have failed in my duty to the Fancy in not bringing the offenders to book. I do not consider so. In my opinion it is not a matter to be dealt with by an individual but by the governing body. The Fancy possesses the Poultry Club. If that club is a strong one let it thrash the matter out. Nay, it must do, since this bleaching wants putting down with a firm hand.



**Some early hatched heavy-laying
White Leghorns.**

Copyright.

THE INUTILITY OF LAYING COMPETITIONS.

By A. T. JOHNSON.



SINCE their inception in this country these contests have been, from time to time, the subject of considerable controversy, and I have always been among those who have consistently questioned their usefulness. Now we are once more approaching the season when existing competitions will be running out; when arrangements will be completed for a fresh start. I am prompted, therefore, once more to put the questions: Have these competitions done any good? Is their continuance justified?

In the first place, as regards the effect they have had upon the poultry industry, let it be admitted that they have helped to stir up public interest in the laying hen. They were a novelty, hence they were taken up by the daily press which set people talking about "heavy-layers" to such an extent that the "big gooseberry" was, for the time at least, quite forgotten. They, or rather the trap-nest, has shown us that the 200-egg-hen is an actual possibility, also that the 40 to 60-egg-hen is still common. That we knew all that before—some say half-a-century ago—does not matter now. Let it pass. They, these competitions, have created not only a new side-line in our industry but the men who run it. The breeder of "laying strains"—never mind the qualifying figures which generally precede that term—appeared, as the man of the moment always does, just when he was wanted; "strains" sprang up spontaneously and things went like a marriage bell. A strong element of sport was the natural concomitant of the competitions and that, together with the glorious advertisement which awaited the successful ones, stimulated the business to such an extent that "breeders of heavy laying strains" and the strains themselves became so abundant that places in the arenas had to be decided by ballot, and that in spite of greatly increased entry-fees and stiffer regulations for the competitions.

Let us grant all that, let us readily admit that these contests have given the breeders of heavy layers a fillip, but I, never-the-less, contend that they have done little or nothing to help those people who are and must always be our chief egg-producers, viz., the cottagers and farmers. If the competitions were so run that they could be studied as object lessons by the above classes of producers much might be said for their continuance. But, I ask, what is the use of conducting a competition on a principle that is quite unfitted for the practical purposes of producing market eggs? If these tests could be made to pay, the whole complexion of the thing would be altered. But they do not pay. In spite of the "heavy-laying strains"—I am presuming that only the "cracks" are sent in to compete—in spite of the careful management, the modern housing, the expert in attendance, an entry

fee and sometimes a big government bounty the affairs are a financial failure. These contests, instead of encouraging, have, so far, held up the hand of warning to all who would go in for poultry farming. They have proved how disastrous a thing it can be even under the most auspicious conditions. The whole fact of the matter is this; the system employed in these competitions is not adapted to this country, and we proved that it did not pay long before the inception of the first competition.

It is all very well to say "Ah! but we are conducting them just to prove what layers can do." But have we not known for long enough what layers are capable of doing? There were hens long before these tests were set agoing which laid their 200 eggs a year and there were drones. There were no 200-egg strains then and I doubt very much whether there are now. Isolated flocks of small size may make that average and more, but that is quite another matter to being a 200-egg strain. We do not want these costly exhibitions—more especially if they have to be sustained by public funds—for though, as I have said, they may have done a little good they no longer justify their continued existence. But we do want some practical demonstration which will not only show the farmer and cottager how to make money by egg-production but encourage them to go in for it. What possible interest can the majority of our egg-producers take in a laying-competition? They may go to see it in progress and look at the layers as if they were viewing the inmates of a menagerie; they may scan the monthly reports in the papers and there it ends. It is a thing outside their world. They have no use for it. Nothing in or about it can they apply to or fit in with their own circumstances at home. They may, it is true, ask the experts in attendance, "Does it pay?" The reply is in the negative, and Hodge metaphorically or actually puts his tongue in his cheek as he turns away and says, "I told you so!"

Again, in so far as the "Table of Results" issued by the managers of these competitions is concerned it not only proves how extraordinarily diverse these "heavy-layers" still are in their prolificacy—a feature, one would imagine, that ought to be showing some levelling-up by this time—but it, the table, is misleading. To take one example, I have before me the eighth result of the Harper Adams Competition. White Wyandottes head the list, the value of their produce for the whole period (eight months) being £4 5s. 9½d. (These six birds, the best lot to date of the one hundred pens, have only made an average of 140 eggs apiece so far, and the best laying months have gone by. But that is by the way; it is perhaps a little unfair to criticise on that point before the contest is closed).

Eleventh from the top are White Leghorns, £3 7s. 4 $\frac{3}{4}$ d. and, seventeenth, Anconas £3 4s. 5 $\frac{1}{4}$ d. Now the difference in production between these two last and the Wyandottes at the head is very considerable. It is enough to induce many people to immediately jump to the conclusion that the Wyandottes are infinitely more profitable than either Leghorns or Anconas. They might be. That is not my point. But I contend that the figures are quite misleading because the difference in the cost of feeding between the White Wyandottes (or Buff Rocks, second place) and, say, Anconas is immense. The fundamental fact that the profit on an egg can only be estimated after ascertaining what it has cost to produce is entirely overlooked. Even suppose the Anconas, which eat only about half as much as Wyandottes or Rocks, had actually produced a bigger *nett* profit than the top-score pen, the latter would still rejoice over its marble time-piece, or whatever it is, and the real winners be awarded a paper certificate or nothing at all.

If the published figures, as they stand, are given to the public so that they, the latter, can glean some knowledge as to which is the best breed or strain those figures are deceiving for the reasons given. If they are not intended to indicate by comparison the value of one pen's achievements over that of another of what use are they?

I believe Mr. Paynter's chicken-rearing demonstration near Crewe is being conducted in such a manner that the system can, if proved successful, be taken up by the small-holder. In it everything depends upon the financial result. If it proves unsuccessful I take it that it will not be adopted by the Cheshire County Council or anybody else. It will be dropped in favour of some other scheme. But in these laying competitions no such common sanity prevails. They go on, with the help of outside funds, cheerfully playing a losing game and do nothing for the rank and file of our egg-producers.

EXPORTING POULTRY.

BY WM. H. COOK.

TO my personal knowledge, there are many breeders who look upon a foreign or export order as entailing an awful amount of worry and work, and will put off from day to day and even week after week, the preparation of the coop and the arrangements with the shipping company, all because it means a little extra work out of the general routine.

They do not realize the anxiety they are causing their client, may be some thousands of miles off, who after a given time is daily expecting the arrival of his purchase, wishing either get the birds acclimatised before the breeding season, or to exhibit one or more of the birds at some local or important exhibition. Just realise what all this delay means, and how disappointed your client is when boat after boat arrives and still no news of the birds he had told his friends were arriving. I would impress upon all readers who receive export orders, no matter how small they may be, the importance of prompt dispatch by the quickest route by a good line of steamers.

The first matter, and an important one, is to study carefully and in detail your customer's actual requirements, having selected what in your mind is full value and birds that will please, place upon the leg a sealed and numbered ring which ensures the birds selected being identified by your client. My reason for mentioning this is because birds have been changed, either at a port of call, or during transit by rail, but by the use of these rings, if properly fixed, it is impossible to remove them, whilst the number is never duplicated by the manufacturers.

As regards the shipping coop, anyone with an idea of carpentering can make this, if not, a local

carpenter will build one in two or three hours. The coops should not be too large as shipping companies charge by measurement. Light, but strong materials must be used, as for any rail journey on this or the other side, the weight question must be considered, and one needs to study the customer's pocket, particularly if he has a thousand or more miles of rail journey for which to pay, and the coop is three times the weight it need be. I have known export coops with their live occupants to be carried over 200 miles on the heads of natives, therefore it is necessary to build them strong and at the same time light. 1 $\frac{1}{4}$ in. square of quartering with either three ply wood or $\frac{1}{2}$ in. matching is quite satisfactory, having a sloping but watertight roof with an overlap of 2in. all round.

The floor and for 6in. up around the sides must be boarded, the front being fitted with an hinged door, is composed of slats or battens, 2in. wide and 2in. apart. No other boards or wood are necessary, use an extra strong Hessian, carefully tacked on with felt nails, this being placed around the two ends and back. A blind made of the same material and to let down during stormy weather or on cold nights completes the coop. Allow the quartering to extend down 2ins. to act as legs, which enables the water used for washing down the decks to flow freely under the coop. Fit an oval shape drinking trough, hung upon the outside of door, which can be easily removed for cleansing purposes. The floor of the coop should be littered with 3ins. of fine peat moss, and an inch of cut straw, this should last for at least six weeks and ensure the birds keeping fit, as the attendant on board will usually remove the droppings and should the

bedding become wet he invariably removes it, replacing same with ashes from the stoke hole. Allow 2ft. by 16in. for a male bird, 2ft. by 2ft.4in. for a trio, whilst six pullets need 3ft. by 2ft. The inside height should be from 2ft.3in. to 2ft.8in. in front, allowing a 2in. slope to the back. Naturally the height of the coop will vary according to the breed, whilst for ducks 2ft. in height is ample.

The feeding of poultry during the voyage is one that should receive the senders careful attention, as so much depends upon the class and quality of the fowls, the length of voyage and the time of year when exported. I do not hold with sending meals as the attendant may not understand blending, mixing the right quantities or feeding this way. Many times whilst on a voyage have I noticed the man who has had birds under his control for other shippers, who have supplied meal or instructed

all necessary arrangements for placing on board and for the prompt dispatch of the coop on arrival of the steamer at the port, by rail to its through destination. Always remember that it is the care taken in exporting your poultry and studying your customers' wishes that will assist you in building up a good name and a regular business from abroad.

Though we all appreciate the fact that England produces the best poultry and it is from us every country in the World are anxious to purchase, we must not forget the fact that there are just as keen fanciers abroad who know as much about the points, good qualities and defects in every breed, as we ourselves do, therefore it will be well for you to realise that there is nothing which gains and makes concrete a customer's confidence more than prompt and intelligent attention to his wants.



The Laying Competition Pens at Storrs Agricultural College.

[Copyright.]

shipping agents to obtain it for them, giving meal in a very wet and unprepared condition, throwing it upon the litter in the bottom of the coop; just think of the consequences and the results of such feeding.

Unless one is accompanying the birds or sending out a trained poultry man with them, it is far better to mix the following grains: hemp seed, whole groats, good rivet wheat, clipped oats, dari, and a little kibbled maize, mixing the whole carefully before placing in a strong sack, with a fair amount of sharp flint grit and best calcined oyster shell. The above feeding will keep the birds in grand order, and supply the best feeding properties possible whilst the birds are confined in their coops. Do not purchase cheap poultry mixtures but buy the best seeds, mix them yourself, allowing 5 ounces per day per bird, with a little over in case of breakdown or delays. There are now many good agents in London who undertake the shipping and

Parcels Post Breakages.

History repeats itself. When the Parcels Post was inaugurated in the United Kingdom many poultry breeders anticipated that the service would be valuable to vendors of eggs for hatching. Such has not proved to be the case. The United States have been nearly forty years later in adopting this branch of the postal arrangements. Complaints are rife as to breakages.

Warming Eggs.

In the review of a Bulletin issued by the Pennsylvania Agricultural Experimental Station, which we have not seen, *Farm Poultry* says that "the most interesting point brought out in connection with the incubator experiments was that eggs warmed for about an hour daily while being held for incubation, seemed to give better results than those not so treated. The presumption is that this practice is beneficial because it supplies the germ with heat as a hen does when she lays in a nest where her eggs accumulate until she is ready to incubate them."

THE IMPORT FIGURES.

By "STATISTICIAN."



ART IV. of the Agricultural Statistics for 1912, issued by the Board of Agriculture and Fisheries gives in amplified form information as to the Trade and Navigation returns. Below is given the table showing quantities of eggs received from each country sending to the United Kingdom.

QUANTITIES of EGGS IMPORTED into the UNITED KINGDOM, from EACH FOREIGN COUNTRY and BRITISH POSSESSION, in each Year from 1908 to 1912 inclusive.

COUNTRIES from which Consigned	1903.	1909.	1910.	1911.	1912.
	1,000's	1,000's	1,000's	1,000's	1,000's
Foreign Countries:—					
Argentina - - -	..	...	...	...	71
Austria-Hungary -	238,521	156,030	164,415	122,707	119,759
Belguim - - -	14,032	8,650	10,249	5,907	3,974
Bulgaria - - -	...	98	158	220	158
Canary Islands -	...	...	...	43	...
China - - -	17	1	121	491	1,062
Denmark - - -	454,520	411,384	437,656	479,158	434,858
Egypt - - -	48,895	86,251	69,987	82,480	127,237
France - - -	114,154	125,742	108,912	78,244	80,363
Germany - - -	143,281	73,538	60,877	69,305	62,461
Italy - - -	157,963	105,091	89,621	92,533	115,001
Madeira - - -	62	166	17	4	11
Morocco - - -	47,717	67,911	33,786	25,795	34,036
Netherlands - -	49,586	73,880	71,139	72,884	93,147
Norway - - -	...	...	21	7	9
Portugal - - -	1,705	1,502	1,182	1,503	1,522
Roumania - - -	...	...	22	1,035	9,999
Russia - - -	868,618	978,556	1,106,110	1,205,027	1,161,252
Servia - - -	...	...	...	219	192
Spain - - -	1,875	3,054	2,550	2,777	3,796
Sweden - - -	33,476	31,125	37,240	41,315	36,662
Turkey { European-	370	328	200	29	...
{ Asiatic	2,597	1,230	1,805	1,332	292
U.S. of America -	816	144	...	1,122	72
Foreign Countries } Total - - -	2,178,205	2,124,681	2,201,068	2,284,137	2,289,434
British Possessions:					
Australia - - -	231	...	...	...	...
Canada - - -	6,047	478	223	1,765	...
Cape of Good Hope -	50	8	...	3	1
Channel Islands -	7	...	...	67	131
Gibraltar - - -	668	81	...	943	541
Malta and Gozo -	...	...	...	...	88
New Zealand - -	...	1	5	32	11
British Possessions } Total - - -	7,003	571	228	2,810	772
TOTAL - - -	2,185,208	2,125,252	2,201,296	2,286,947	2,290,206

It will be seen that the countries which in the five years recorded show steady increases are: Egypt, the Netherlands and Russia, and that steady decreases took place from Austria-Hungary, Belgium, France, Germany and Italy. Russian advances more than made up for all others as more than half the imports are from that country. The small contribution of British Possessions is again evident. As the figures stand in this table only one egg out of 2,965 imported came from these, the bulk of which are credited to Gibraltar, and are probably therefore, either Spanish or Moroccan, as The Rock is not likely to do more than supply its own needs, if it does that much. If we eliminate these only one egg was received from the rest of the Empire out of 9,911 imported.

Other tables give (1) the Average number of eggs imported per head of the population from 1892 and (2) the Average Values of Eggs imported per 120, of which the following are extracts:

Year	Quantities per head of population		Average Values per 120. s. d.	
1892	...	35	...	6 10
1893	...	34	...	7 0
1894	...	37	...	6 5
1895	...	39	...	6 4
1896	...	40	...	9 4
1897	...	42	...	6 3
1898	...	43	...	6 2
1899	...	48	...	6 3
1900	...	49	...	6 5
1901	...	49	...	6 5
1902	...	54	...	6 8
1903	...	56	...	6 8
1904	...	56	...	6 9
1905	...	53	...	7 3
1906	...	52	...	7 6
1907	...	51	...	7 8
1908	...	50	...	7 11
1909	...	48	...	8 2
1910	...	49	...	7 11
1911	...	50	...	8 4
1912	...	50	...	8 10

In 1912 Eggs were re-exported to the number of 19,371,400, in Value £68,080.

Figures are not given for poultry in the same way, but the Summary says:

In the trade returns for 1912 the quantity and value of poultry imported alive were distinguished from that imported dead. Out of a total value of 846,000*l.* for all imports of poultry, 39,000*l.* represented the value of 246,000 cwts. of dead poultry, of which one half was from Russia, and the remainder chiefly from France, Austria-Hungary, the United States and Italy.

THE HAGUE EXPOSITION.

By Our Special Commissioner.

IN connection with the celebrations attendant upon the opening of the Palace of Peace at The Hague there has been arranged an agricultural exhibition of a somewhat novel character, which is highly interesting and possessing a truly educational character. This is upon an excellent site at Scheveningen, the famous watering place just outside the former city. Sixty acres have been devoted to this display, upon which have been erected picturesque buildings for each section. Where it



The Limberg Pens at the Hague Exhibition. [Copyright.]

differs, however, from an ordinary show is that there is no competition. The object has been to give a representation of the various animals and birds bred for utility purposes in the different provinces, and also the produce in which each section of the country is specially concerned. The classes are provincial in the main. As a result there is presented a fair representation of the country, and in the case of live stock only those breeds are on view which are recommended as suited to the conditions met with. As the number of specimens is limited visitors are able to see at a glance typical specimens without being mystified by numbers. In addition there is a fine display of machinery, and the education sections are remarkably complete, showing how the central and provincial authorities endeavour to develop agriculture, and deal with problems such

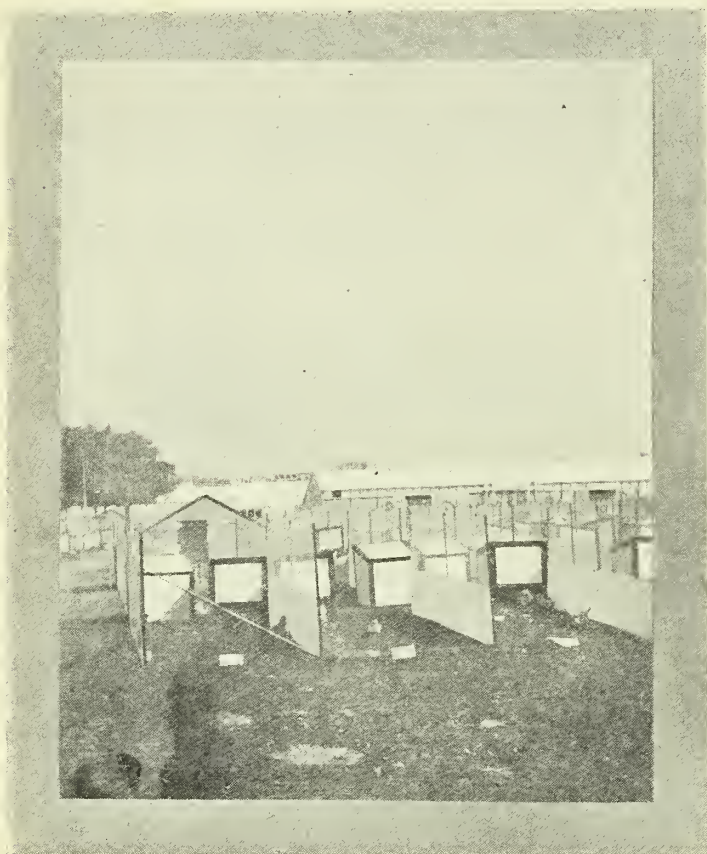
as diseases when these arise. The vast crowds who have attended the exhibition, drawn from all parts of Holland, many of whom appeared in their picturesque garb, have proved the attractiveness of such a display.

Poultry occupied, as was to be expected, a relatively important place and presented features that are distinctly novel, but are none the less worthy of careful study. The section was in the main, organised by the Netherlands Poultry Organisation Society, known shortly at the V.P.N. This body with its 20,000 members, its host of provincial branches, and the co-operative societies affiliated to it, is to a considerable measure responsible for later developments of the poultry industry, and through it the Dutch Government works, making to its funds a moderate annual grant, enough to pay the salaries of two of its leading officials. At the same time the members themselves provide the greater parts of the funds, as self-help is a Dutch characteristic. Mr. H. B. Beaufort, consultant to the society, who represented Holland at the International Meetings in July last year, and whose portrait we gave in the issue of that month, designed the display and was director of the arrangements which, reflect great credit upon him. Mr. J. Schulyman, Secretary of the V.P.N. was in charge of the special exhibits. It may be mentioned that there was also a large section devoted to rabbits.

Outside were 113 houses and runs, each with its pen of birds, consisting of one cock and ten hens. Small houses, built of cemented asbestos fitted into wooden frames were provided, one for each lot, and with a grass run about 20ft. by 8ft. In addition there were thirty lots of waterfowl, provided with open fronted straw sheds, a grass run, built by the side of a stream to which they had access, so that these birds were in their natural element. So far as the former were concerned, the plan given shows the arrangement. Every province of Holland sent ten or twelve pens grouped together, and there were thus about 1,500 birds in all.

So far as the breeds were concerned it speaks much for the broadminded nature of our Dutch conferees that the majority were not native. The breeds on display were—Fowls: White and Brown Leghorns, Silver Brackels, Silver Chaamsche, Black Minorcas, Black and White Uilebards, Silver Hollandsche (Hamburghs), White Drente, White and Silver Wyandottes, White and Buff Orpingtons, Barred Plymouth Rocks, Rhode Island Reds, Barnevelds, Malines and some crosses; ducks were mainly Indian Runners; geese, Embden; and a lot of white turkeys. The chief novelties were the White Drente fowls, mixed breeds which we call Barndoor fowls (Boerenhoenders), and a black race, not unlike Black Orpingtons, called Groningen Nuthoen, which simply means utility fowls of that province. As a fancy show it would be nowhere. At this season many of the birds were in bad feather. The object

was to show the races which are recommended in each province, and no others were admitted. That is the main point, and where the practical value of such a display is to be found.



General View of the Poultry Pens at the Hague Exhibition.

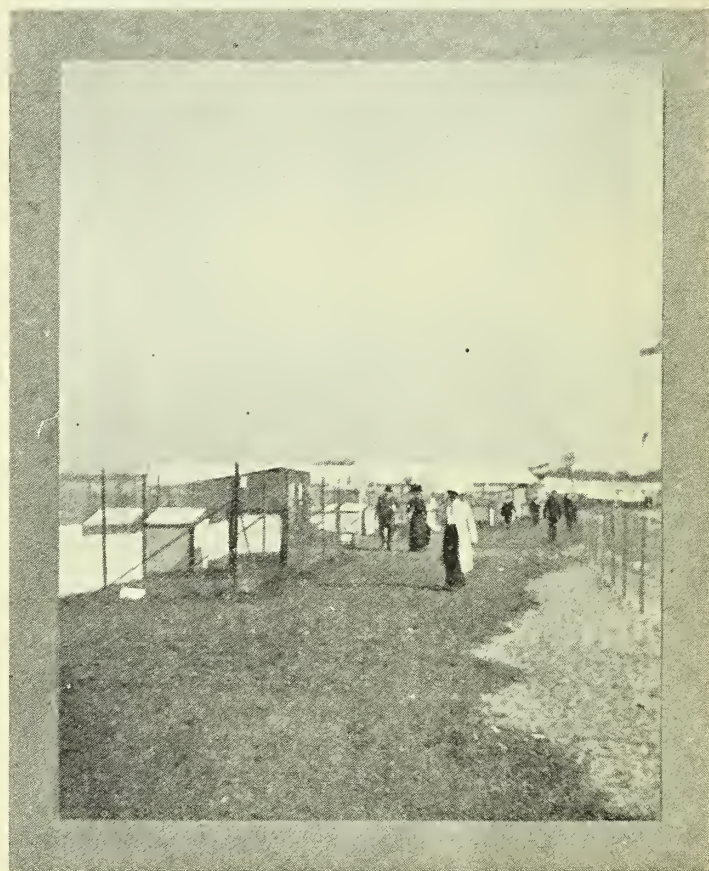
[Copyright.]

So much for what was in the open. A roomy building contained much of interest. Here were incubators and brooders, coops and foodstuffs, fattening cages and machines, and an educational display which was one the best we have seen. Books and publications in several languages, among which was the *POULTRY RECORD*, well represented literature. Original drawings of breeds occupied a prominent position as did various models. What, however, commanded special attention was the wonderful series of diagrams, some of which showed the progress of the industry, equally as the number of fowls in comparative years, and the changing nature of the trade. A few years ago the imports of eggs were vastly in excess of exports. Steadily the former has grown and now the margin is considerably on the export side. Such is striking evidence of the results attained. An effective series of maps showed the distribution of fowls in respect to area of the various provinces. If, as is always the case, instruction by the eye is more impressive than by the ear, these diagrams could not fail to teach an abiding lesson.

The V.P.N. has as one of its leading objects the extension of co-operative marketing, the growth of which was demonstrated with equal effect. Models of eggs showing increased sale in this way,

was striking in the extreme. In 1902 the dummy egg was not much bigger than that from an ostrich. By 1912 this had become a huge sphere representing 33 millions of eggs. One society alone had handled 19½ millions. Specimens of boxes, photographs of sales, and a multitude of other exhibits commanded the attention of visitors, as did a dark room, where could be seen good, stale and bad eggs. A testing cabinet sent by the Maestricht Society was at once simple and effective. A distinct novelty was a single testing lamp for more closely trying doubtful eggs, in which the electric lamp was only lighted when an egg was pressed against it.

As a practical demonstration in relation to Utility Poultry-Keeping this section of the Hague Exhibition was worthy of all praise, and the example is worthy of emulation. Where, however, a difficulty arises is that the Dutch Ministry of Agriculture has provided the funds to enable it to be made. No private society could do this on a non-competitive basis.



The Main Avenue, Poultry Section, Hague Exhibition.

[Copyright.]

Canadian Poultry Imports.

Canada is either producing fewer poultry or eating many more. In 1908 the Dominion exported fowls to the value of £23,000 and imported a little more than £10,000 worth. Last year the exports were £2,600 and the imports—mainly from the United States—amounted to £80,500. Considering what looked like being the case a few years ago, this is a surprising change.

EGG PRODUCTION.

EXPERIMENTS AT GARFORTH.

FOR nearly twenty years the Leeds University, in association with the education committees in the three Ridings, has given considerable attention to the poultry industry, and by means of lectures delivered throughout the entire county a comprehensive system of instruction has been arranged. The success of these lectures has been very great, both as to attendance and influence exerted.

Only those who are familiar with the rural conditions in the northern counties can realise the keenness of interest shown by men and women alike in the poultry-breeding industry, more especially in the West Riding. At one period this interest was confined almost exclusively to fanciers—for the exhibition system was practically born in Lancashire and Yorkshire—but now utility holds the field. All the developments of recent years have been in this direction, although there are still many prominent exhibitors in the county. The food supply of this populous area is a serious problem, and the demand for eggs enormous, and these facts have been seized upon by the University in pressing the claims of poultry-breeding with most gratifying results.

The University and County Agricultural Council have since 1898 had a teaching, demonstration, and experimental farm at Garforth, a few miles out of Leeds, consisting of more than 400 acres, upon which is a small poultry plant. With the facilities at their disposal, the authorities have been able to do much useful work, but in view of the importance of the poultry industry there is still room for development and considerable extension is required.

THE OBJECT OF THE EXPERIMENTS.

The poultry pens at Garforth are situated immediately to the west of the stack yard. As at present arranged, the shed is divided in eight pens with runs to correspond, these being supplemented by movable poultry-houses in the fields. The work during 1912 was a continuation of the experiments of previous years so far as concerned the laying varieties. The following is an indication of the lines on which the work is being carried out. It is desired in the first place, by a systematic comparison of results, to ascertain the breeds that may be regarded as most useful (a) as laying varieties, and (b) as general utility fowls, regard being had to attendant circumstances affecting the suitability of each breed for keeping under ordinary conditions.

In the purchase of the fowls, care is taken to obtain typical representatives of their particular breeds, without undue consideration being given to purely "show points." The eggs laid by each hen are registered, and in this way individual birds are compared, as well as the pens collectively.

The following tables give particulars of the eggs laid by each pen of selected birds in 1909, 1910, 1911, and 1912 (January to December inclusive):—

Breed.	Average Number of Eggs laid per Bird.							
	1912.		1911.		1910.		1909.	
	Pullets.	Hens.	Pullets.	Hens.	Pullets.	Hens.	Pullets.	Hens.
Scotch Grey ...	147	132	143	140	146	138	142	136
Faverolls	136	131	138	128	140	134	137	123
White Leghorn	181	147	152	—	143	139	128	137
Buff Orpington	111	—	—	120	—	139	135	—
Silver Wyandottes	137	140	137	143	136	139	134	139
Rhode I. Red ...	*79	—	—	—	—	—	—	—

* From Pullets not trap-nested, or kept in pens.

Breed.	Highest Individual Number of Eggs.							
	1912		1911.		1910.		1909.	
	Pullets.	Hens.	Pullets.	Hens.	Pullets.	Hens.	Pullets.	Hens.
Scotch Grey ...	151	138	149	147	151	143	149	138
Faverolles	142	136	149	133	147	140	146	127
White Leghorn	187	153	157	—	148	143	159	143
Buff Orpington	—	—	—	—	—	—	—	—
Silver Wyandottes	140	143	145	148	142	146	141	145

One of the most remarkable and interesting features of the above table is the even average of laying during a period of four years.

INTERESTING COMPARISONS.

In 1904 the laying powers of the black Minorcas, white Leghorns, Anconas, Scotch Greys, and Houdans were compared. Later, as representing general utility and laying breeds, the silver Wyandottes, Faverolles, and buff Orpington breeds were included, and the black Minorca, Ancona and Houdan breeds excluded.

In 1908 cockerels of the large type of white Leghorn were purchased to mate with the small white Leghorn pullets at Garforth, which in that year averaged 154 eggs. The progeny from this union reduced the average in 1909 from 154 to 128. In the following year two hens and a cockerel of the original Leghorn type were imported from Denmark. The hens started to lay on February 20th, and from that date to September 30th the two hens produced 211 eggs, which was four eggs each more than the average from the English Leghorn hens during the same period.

Eight pullets were selected from the progeny of the imported hens and mated with another male bird from Denmark. These pullets averaged 152 eggs from January to December, 1911, and in the following year their progeny (pullets) gave the satisfactory average of 181 eggs. Having thus ascertained that, as a layer, the small type of Leghorn is the more prolific the breed has been excluded so as to make room for white Wyandottes.

The results obtained from the experiments at Garforth and the new facts brought to light cannot fail to be of great value to the large number of persons interested in the poultry industry. When it

is remembered that millions of eggs are imported from the Continent every year, and that with a proper system of organisation among farmers and smallholders in this country, the home trade could practically meet the demand, it will be seen that the work undertaken by the University is of great importance and likely to have far-reaching effects. This branch of the University's activities is under the supervision of Mr. Fred. W. Parton, who has been lecturer on poultry-keeping for nearly fourteen years, and who has been indefatigable in his efforts to arouse interest in what has hitherto been a neglected industry.

SELECTING THE STOCK.

By FRED. W. PARTON (*The University, Leeds*).

UPON the manner in which the breeding stock is selected very largely hangs success or failure. Delay is one of the most common mistakes and frequently leads to disaster. To obviate the possibility of trouble in this direction, an eye should be kept upon the birds that are to be inspected with a view to their occupancy of the breeding pen. The time may not be yet for the final selection of the breeding stock for next season, at the same time, in all well-managed poultry yards, the owner has a very shrewd idea as to which are to be chosen. The final selection is a much more simple matter when systematic culling has been in vogue, and all the birds that possess undesirable qualities have been eliminated. We have seen poultry yards where the most rigid weeding out has been practised ever since the chickens were old enough to show any pronounced faults, with the result that the remainder were of such uniform appearance, that to select an unsuitable bird would be a difficulty. It is a matter of the utmost importance that selection should be made as early as possible, since it is necessary that age should be one of the determining factors, and if the final selection is put off till the turn of the year, immature stock may quite unwittingly be chosen, as it is not always an easy matter even to the most experienced, to state with certainty the age to within seven or eight weeks. The breeds, of course, vary very considerably in the speed at which they grow; however, with both the quick and the slow growers it is a wise precaution to select the birds sufficiently early for their size and appearance to indicate the month in which they were hatched.

In making selection, size is a matter which should be duly observed, yet at the same time it must not be imagined that the birds, both males and females, should of necessity be huge specimens; this is equally as foolish as selecting only those of diminutive proportions. We have known men who would scorn the idea of breeding from a white or dark

legged bird that belonged to the yellow legged group, or vice-versa, yet the same men would have no compunction about breeding from a nine pound cockerel when the standard weight is six or seven pounds. The standard weight should be regarded quite as particularly as should be any other of the external characteristics. This, however, applies more to the non-sitting breeds than to the others. If the birds are excessively large the true type of



The Poultry Pens at the Hague with Shed and Rabbit section in the distance. [Copyright.]

layer is lost. It is generally admitted that the small type is the better layer, yet it is very unwise to select under-sized and weedy stock that are lacking in the constitution that is necessary for the perpetuation of a high egg yield. There is a happy medium, and excess in either direction should be avoided, as a matter of fact the utility man should regard, and keep to, the type as set forth by the Poultry Club, in so far as it is in harmony with the quality for which he is breeding. After having selected the pullets on right lines, so far as size is concerned, and when the object is to breed layers, they should be very carefully observed as to their habits, a lethargic pullet should have no place in the breeding pen. If the pullet is bright, sharp, and active, broad across the back, and well-developed in the hind part of the body, with tail well up, and inclined to fan shape, she will usually prove of service as a layer and a mistake cannot be made in selecting such birds. In the selection of the male bird, the first and foremost consideration

is the strain of which he is a member. This is very important, since he has the power, to a large extent, of improving the laying powers of his progeny, and if he is not from a good laying strain it is more than probable that he will neutralise all that has been done in the selection of good laying qualities on the maternal side. The most prominent points in the male that denote a breeder of layers, are a sprightly, well set up bird, a large and well-developed comb, legs wide apart at the hocks, and rather tall, and a tail that is carried somewhat high. This, in a "fancy-bred" cockerel, would be regarded as a very serious blemish, it is, however, one of those little points that long experience and observation have shown to be an indication of vigour, it is at the same time difficult to explain, but nevertheless the fact remains. When the object is mating for the best quality table chickens, selection of the breeding stock should be on different lines than when selecting for laying purposes, since the two classes are distinctly opposed in their characteristics. For table use the opposite in all points enumerated for the selection of layers should be looked for. The frame should be very large and massive, with great depth of body, the legs should be very short, medium or small comb, whilst most of the bodily development should be in front, and instead of the activity which is such an important item in laying breeds, a less energetic temperament is preferable. When the general purpose, or winter laying class of fowl is required, that is, a breed that possesses, to a modified extent, the qualities of both the laying and table breeds, birds should be selected that have no abnormal development, but rather a combination of the above-mentioned characteristics. For all three classes into which ordinary fowls may be divided, namely, layers, table fowls, and general purpose varieties, typical specimens will be found respectively in the Ancona, the Dorking and Plymouth Rocks, a mistake cannot, therefore, be made in selecting with these as the ideal birds.

POULTRY FARMING IN RUSSIA IN 1912-13.

The weather conditions were not very favourable for this industry. The spring was cold and late, and this meant the late hatching of chickens. Notwithstanding this, the total results for hatching seem to have been about average.

The wet summer and autumn—especially in the poultry-breeding districts—had a worse effect than the spring conditions. Turkeys especially suffered from the wet. This mainly affected the landed gentry, as the peasantry do not breed turkeys. The peasants' poultry also suffered heavily from various complaints consequent on excessive wet. Luckily the bad influence of the weather was counteracted by the excellent grain and Indian corn crops, which are the main poultry foods used. Thanks to this factor, conditions were quite satisfactory by the end of the year. In most of the poultry breeding

districts there was an increase, both extensive and intensive, but a decrease is observed in Poland. The bad weather, and consequently the bad roads interfered greatly with the forwarding of goods, especially in those districts which are far from the railway. However, 1912 was more satisfactory and gave a better return to the poultry farmer than 1911. Prices were good, and there was a good demand for all poultry, especially for geese and fowls.

It is the egg industry that is really the cause of the activity in poultry farming. The industry would be in a far better position were it not for the general ignorance of the principles of poultry farming and for the absence of organisation.

According to the figures of the export returns the amounts for eggs were as follows:

		In 1,000,000.		In 1,000 Roubles.
1910	...	2,998	...	63,690
1911	...	3,682	...	80,757
1912	...	3,396	...	84,655

Thus in numbers the exports decreased as compared with 1911, but in value increased by nearly 5 per cent. and as compared with 1910 by nearly 33 per cent.

The main buyers were:—

	1911.		1912.	
	In 1,000,000.	In 1,000 Roubles.	In 1,000,000.	In 1,000 Roubles.
United Kingdom ..	1,308	30,643	1,135	32,742
Germany	1,119	23,766	1,001	23,611
Austria-Hungary ...	793	15,870	862	18,162
Denmark	* 78	1,712	44	1,185

The largest centres for the egg export are the Voronesh and Tamboff governments. The export of poultry is carried on mainly in South-West Poland, Livonia, and Little Russia.

The export of eggs is developing, as besides the Kurgan and Petropavlovsk districts, which were formerly the only places from which eggs were sent, Barnaul and Kamen, on the River Ob, are also commencing to export. The farmers are beginning to take more interest in this business, which is a profitable one, and I believe that a few years will show a large increase in the number of cases exported.

Electric Chicken.

Many and varied are the uses of electricity. One of the last notions is to electrify young chicks. In fact it is claimed there should be a generating plant on every poultry farm. Whilst we know so little as to this great force the expenditure of money in that way is more than doubtful. If chickens why not babies? What is good for one would probably be equally valuable for the other.

FANCIERS AND FANCY MATTERS.

BY WILLIAM W. BROOMHEAD.

"GEMS" FROM SCHEDULES.



IN search of humorous items one would scarcely be tempted to turn to schedules of poultry shows. And yet, occasionally, these publications are not the cut and dried lists they are wont to be. Quite recently I was scanning some and I came across a couple of printer's (?) errors that in cold type caused me to smile. One was a bold announcement that, among others, classes were provided for "Rhode Island (red rosecomb)" and "Rhode Island (red single-comb)." It is generally known, I presume, that the combs of Rhode Island Reds *are* red and not black, white, blue, green, or any other colour. I notice that at the event one of the classes had to be cancelled for lack of entries, while in the other only a very few were made. At the second show—in Ireland, by the way—one class was scheduled for "English Pet, Game cock," and another for "English Pet, Game hen." The Game fowl may be an English pet; certainly the old fighting cocks were something in that line in bygone days. However, the thing went well—there was a nice muster in the two classes of Old English Game fowls of the fiery-eyed and "die-hard" brand, looking in every way fit to do battle in the Game pit.

SPECIAL PRIZES.

One sees little variation in the articles which are offered at poultry shows as special prizes, and if I omit from the list a really marvellous assortment—including copper kettles, bangles, cruets, and other odds and ends of a similar nature—which is offered each year in lieu of prize money at a certain north country fixture, I find that the choice is narrowed down, as a rule, to medals, napkin rings, egg-cups, spoons, and match boxes. The Poultry Club certainly made a break when it brought in its list of silver articles from which a selection could be made to take the place of the antiquated silver and bronze medals it offers as specials. The other day I was discussing the question with a friend who is not a fancier; not even a keeper of poultry; and he, having just had the honour (?) of winning one, suggested that a miniature cup—"booby" cups as they are termed in other "fancies"—would surely make a good poultry special. I give the suggestion for what it is worth. For myself I fail to see why specials cannot be in coin of the realm; but there appears to be an objection in certain quarters to their taking this form. To win a cup and first—no matter what the value of the cup—would sound rather better than "first and special." The fear is, of course, that there would be too many cup winners!

"Rocks."

Solid things; and nasty, too, when they are jagged. But of other Rocks. I see in a recent

issue of a contemporary that an authority on poultry, and one who is a regular contributor to the journal in question, deplors the fact that some of us—I plead guilty—are in the habit of using the word Rock to denote that good old American breed which was landed on these shores as the Plymouth Rock. He preaches quite a nice little sermon on the text. And yet, unless I am very much mistaken, this same authority, who now hides his light under a bushel in the form of a nom-de-plume, was very wont in his youthful days to refer to Minorcas as "Norks," to Wyandottes as "Dottes," to Orpingtons as "Orps," and so on.



The Zeeland Poultry Section at the Hague Exhibition.

(see page 23.)

[Copyright.]

Granted, it does not add to the tone of the great and glorious Fancy to resort to slang, although in these days fanciers are very apt to reach the minimum when referring to breeds. Nevertheless, if it be an evil, then of the two let us choose the less. If it be wrong to refer to Plymouth Rocks simply as Rocks, what of "Norks" and the other abbreviations? Let us be consistent. Take it from me, there is nothing wrong with Rocks.

ARE SHOW RULES OBSERVED?

It has been said that "Rules are made to be broken." Possibly the first man—maybe woman—who gave utterance to this sentence did so in a

spirit of sarcasm. Be that as it may, however, it would appear as though it is taken for granted in the Fancy. Rules are made, quite a number of them, but more often than not they are honoured in the breach rather than in the observance. In my opinion the rule that is more frequently ignored than any other at a poultry show is that which prohibits exhibitors from penning their own birds. In the vast majority of schedules nowadays there is a statement to the effect that this rule will be strictly enforced, and yet seldom indeed is any attempt made to do so. As a matter of fact, in all but a few cases the rule might as well be omitted. Perhaps it is that secretaries and their stewards have so much to do on the morning of the show that it is practically impossible to enforce the rule. The fact remains, nevertheless, that very few committees are sufficiently strict upon this point.

AN EXAMPLE.

At a show of some importance held not many months since, I noticed a number of exhibitors in the tent early in the morning giving their birds the final touches and then penning them. On drawing an official's attention to this breach of the rules—purely as a test case, let me remark—I was told that it was the usual thing; and no attempt was made by the management to put a stop to it. Granted, directly the judges were ready to commence their duties the intruders were requested to get outside, and the tent was cleared. Nevertheless, condition counts for much in a show bird. And when the awards went up it was patent to see the great advantage these rule-breakers had over those exhibitors who had kept to the letter and got their birds penned by the stewards on the previous evening. Much of the bloom had been removed from the specimens which had been staged for some hours prior to judging—and staged, be it remembered, in strict accordance with the rules.

THE OBJECTION.

Incidents of this kind are, not unnaturally, obnoxious. The impression conveyed to novices and amateurs cannot be other than a very bad one. And on the whole, I think that this non-observance of an important rule is responsible for much of the unpleasantness that exists in the Fancy. At a show held under Poultry club rules a representative of the club should be present, and he should make it his business to see that the regulations are carried out in their entirety. At any other event the responsibility rests solely with the management. It would be as well if all who have anything to do with the conduct of poultry shows realize the importance of not only inserting this rule in their schedules, but also of carrying it out to the letter. If the rule must stand then no person should be allowed to pen his own birds, or those of an employer or a friend; and more particularly should he be prevented from doing so a few minutes before the judge is ready to begin.

IN JUSTIFICATION.

Ere leaving the subject let me refer briefly to the

other side. There is something to be said of the exhibitor who travels a considerable distance with a particularly fine team of birds. He goes to no end of trouble and expense to have his charges "penned to the minute," since, not unwisely, good condition does have to be taken into account when awarding prizes. He knows that his birds may be subject to very rough handling on the part of some railway officials; and there may be an unnecessary delay if the hampers have to travel over two or more systems, as often happens. Then, too—and this has been somewhat forcibly brought before the fancy during the past few days—all stewards do not, or will not, unpack or repack the exhibits in a correct manner. These are all good reasons why the man with a fine team should accompany the birds. Nevertheless, it is putting a heavy premium on the small man who has not the means to travel to the show with his one or two exhibits. And when all is said and done, when entries must count, those exhibitors who send their "mites" are greatly in the majority. There are, as I have said, cases of damage being done to valuable specimens by rough handling on the part of railway officials and show stewards. Fortunately, however, such are really of rare occurrence, and are certainly the exception rather than the rule. Let it be known that all birds will compete on a level basis by being penned by the stewards overnight, and there can be no possible ground for complaint that the big men gain an advantage over the others. Such a rule as this is in force at the Dairy Show, the International, and a few other important events. It should, however, be the universal rule, no matter what the size of the exhibition.

A WHITE ORPINGTON BOOM.

In certain quarters of late, and no doubt owing to what is now known as "the bleaching scare," there have been fears that the White Orpington would lose its popularity. One enthusiastic—and very successful—breeder and fancier of the variety, however, means to keep it well to the fore this season, so he has arranged for a very special display of Whites this month at Maidenhead Show. Amateurs and novices will be catered for in a most generous manner, and they should answer to the call. Of the eight classes that will be scheduled



White Orpingtons.

[Copyright.]

there are four open to all, two confined to novices, and two with a two guinea limit. In these last classes £2 as a special beyond the prize money will be given in each, and this should induce large breeders to enter good stock and thus enable "the small man" to make a few bargains. There are several good club specials, while the prizes are 20s. first, 10s. second, and 5s. third; so I am looking forward to seeing a great show of White Orpingtons at Maidenhead on the 29th inst.

A NOVELTY IN PRIZES.

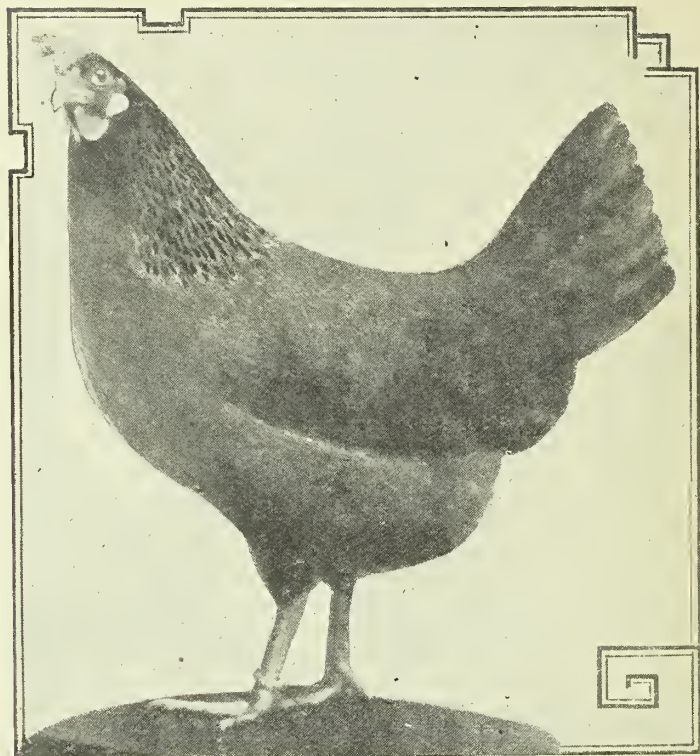
Those of us who received schedules for Birkenhead Show were struck by the manner in which the awards were to be made. Thus, instead of the usual three or four cash prizes and honour cards—these latter ranging from a "reserve" to a "commended"—it was announced that seven prizes and no cards were to be given in each class; that is to say, if entries permitted of it the seven best birds would be prize winners. Only three of these prizes, however, are cash, the others being cards, so in a sense it is at first sight a distinction without a difference. There is, nevertheless, a difference that means much, since, whereas under the ordinary conditions all other than birds which gain the money are not prize winners, every one of the seven best at Birkenhead can be legitimately described as such. It is, I believe, the invariable custom at Scottish Shows to award only one honour card of each degree—reserve, very highly commended, highly commended, and commended—in a class, and many of us who act as judges adopt such a system. For years now I have rarely deviated from the rule, simply because in my opinion a man who can select the best three can pick out the best seven or eight as the case may be; and then these honour cards are valuable.

Some comment has been made on the Birkenhead novelty, but I must admit that I am in favour of it. If it does nothing else it will put a stop to the weak method adopted by some judges of awarding a card to almost every bird exhibited. I have seen in classes of twenty where only one entry—and that an empty pen—had failed to catch the judge's eye, but I have never seen the sense or the utility of being so lavish with what many fanciers term "the coddling cards." The Birkenhead idea is one that could well be adopted at all shows. It has been asked if it is advisable to encourage the selling of birds—so far removed from the first prize winner as seventh—as prize winners at Birkenhead, when in reality they are winners of prize cards only? That is, maybe, the weak point. Nevertheless, in lists of prize stock I have known fanciers to claim their birds as winners of, say, a hundred "prizes and honours," when the latter—barren awards and cards only—greatly outnumbered the actual prizes! Where is the difference?

SOME SHOWS.

Already this season great shows have come and gone, but there are others to follow. Among those held last month were Birkenhead and Hayward's Heath—which unfortunately clashed—and then

the greatest one-day show of its kind, at Altrincham, Cheshire. This month two of the most important fixtures are Manchester on the 10th and 11th, and the Dairy from the 21st to the 24th, while between them is the "bantams only" show at Nottingham on the 16th. The schedules of these three events are to hand. No less than 195 classes are offered at Manchester with 63 for bantams. At Nottingham



A Typical Brown Leghorn Pullet. [Copyright

there are 50, including two for Belgian breeds, two for "self blue or laced on a blue ground" (all Game excluded), and four for novices. The total at the Dairy is 269, and of them 54 are for bantams. There is no doubt that the Bantam Fancy is a large and growing one; and what with the recognition of the beautiful Belgians—in d'Anvers and d'Uccles—the influx of new breeds such as the rosecombed White Orpington, and the resuscitation of old kinds, it is likely to remain a popular fancy for many years yet.

Of the November fixtures the first will be the great Game, Game bantam, and variety bantam specialist show at Kendal, on the 5th and 6th, while on the 4th and 5th Liverpool will once more attempt to come into line with the best. Of Kendal's success there is no fear; it is established and everyone who is anyone in Game and bantam circles knows what it means to win at the great Westmorland event. Liverpool promises well. The idea is a bold one, to combine the utility with the fancy, and I wish it luck. Then there will be the Palace on the 18th, 19th, and 20th, unquestionably the greatest show of its kind on earth, and likely to be one of the biggest events, if indeed not the record, of the series. The schedules of the November shows are not yet issued, but it promises to prove a busy month for exhibitors.

NEW LIGHTS ON ARTIFICIAL HATCHING.

BY P. SWEERS, (*Crefeld, Germany.*)

IN the year 1896 I received an incubator from a gentleman who could obtain no results with it. It was an English Hearson. I placed 100 eggs in the apparatus and obtained, after 21 days, 3 chickens. When I informed the giver of the results, I was asked why the others did not hatch out. The solution of this problem interested me very much, and for many years I have worked to find the answer to the riddle. I have striven tenaciously, and when I saw that I was working in the wrong direction, did not hesitate to leave this at once and to try a new method.

My second and third returns of 1905/7 gave ample material concerning breeding stock and eggs. Later on I realized that singlehanded I should never reach the goal. Therefore, I decided to let out the apparatus, under the condition that I should be told the experiences obtained.

As I found, during my experiments, that the material from which the apparatus were constructed (wood) had properties which influenced the well-being of the embryos unfavourably during the incubation period, I had an apparatus made from strong cardboard and gave Mr. Bergmann of Kloster Seebach, in the district of Langensalza, permission to introduce such apparatus into the trade, under the name of the Sweers System, with the intention that in this way the apparatus should come into many hands.

Exchange of views in the German *Landswirtschaft Geflugel* newspaper caused the question to be still further considered, and through my suggestions in the spring of 1913 to examine jointly some points which were of great importance for artificial breeding, I made further progress, and believe that I have now advanced so far that much which was dark has become clear. The "dead in shell" birds have been materially minimised, and the percentage of hatched and healthy chickens have, in comparison with previous times, risen considerably.

Here I cannot omit to express my heartiest thanks to all those ladies and gentlemen, and they are many, who have greatly assisted me in my endeavours to deal with postcards and lists, and sometimes very detailed writings and remarks, and that foreign countries have also interested themselves in the matter, has likewise gratified me. Every single postcard and letter was very valuable to me. All contributed a stone to the further building of the work.

To cope satisfactorily with all this writing was not always easy, but in some cases I could manage it. In order to complete the work, I made in the spring, a little tour through Germany, in order to exchange ideas personally with breeders. This journey was so satisfactory that I made a second longer one in order to hear the experiences of others on certain points. The results of all this

work is given below, and I hope that my account will be so clear, that it will not only be understood, but, in the coming breeding season, will also be followed. We are certainly far from the time when to carry on a successful artificial hatching business will be the common property of all participants, but, if through following my advice, it becomes possible that 80% of the eggs produce healthy chickens, then, I believe that many a breeder will desire such results.

On February 1st, the first egg was put in, on May 31st the last chicken was hatched out. Out of 6000 eggs 5300 proved to be fertile and produced on the twenty-first day 4800 chickens.

These are results which will make one think, and now let me turn to the pith of the subject.

THE FIRST POINT: Regular temperature in the apparatus. Everyone asks himself: Can good results ever be obtained if the temperature in the apparatus is a very irregular one? We must consider that natural laws have their limits, and where, in the corner, there is a temperature of 37 degrees C., * and, at the same time one of 41 degrees C. in the middle, then, in the first days, many eggs will already show themselves incapable of hatching, because the conditions under which good development takes place are not fulfilled. The difference, at the most, must be only one degree, and here, a hollowed situation must be declared as not good. The heat becomes too much concentrated in the middle, and diminishes considerably in the corners. To make the egg drawer deeper in the middle does not add to the advantages which can be claimed by a good apparatus. There are already, no doubt, apparatus which, by an ingenious arrangement of water pipes, guarantee an even temperature. However, there are many which do not justify their claims. Do not fear trouble and a little expense, and test beforehand the evenness of warmth in the apparatus above the egg trays. Think of all the chickens which again this year were found dead in their shell.

Buy yourself some cheap thermometers, which are easily read (it is not necessary that these should conform with gauged thermometers) and lay these (for example four thermometers) in the apparatus, so that without opening it the temperature can easily be read through the little glass door, if necessary by means of an electric pocket lamp. Note on a piece of paper the position of the quicksilver and the temperature, move the thermometer several times, and you will find without difficulty where the highest and lowest temperature is. By means of two little wooden strips laid across the apparatus above the eggs,

* To arrive at degrees Fahrenheit multiply degrees Celsius by 9/2 and add 32. Thus 37 deg. C. is 98 3/2 deg.—EDITOR.

and placing on the too warm place a strip of cardboard, it is possible to regulate the warmth fairly accurately, and you can by this means alone verify, on the first testing eggs, unfertile i.e. blood streaked or dead eggs are taken away.

THE SECOND POINT: The more irregular the size of the air-bladder in the egg, the worse the results at the second testing of the egg. Here also it will be apparent to everyone that the more the eggs have lost in weight, i.e., have dried, the more unfavourable for the yield of the chickens.

I have already reported this in detail in No. 21 of the D.L. Geflügel newspaper, and I must refer to that article. If you are not in a position to use only the eggs from one or two layings, but must collect them, lay the eggs in the cellar in damp sand, notice that the temperature does not sink too much below 10 degrees Celsius; (5 degrees is very harmful) and the hatching results will, by this means, be much improved.

The temperature in the incubation room must be between 15-20 degrees Celsius, if too cold, the eggs will suffer. Eggs from one-year-old hens and one year cocks give less good results. A trial, with two-year-old cocks and one-year hens or visa versa, is to be recommended. The egg, however, of second-year birds are to be preferred.

If equal sized large eggs are used in the incubator, the advantage will soon be seen. Small eggs lie colder. Measure the temperature of the eggs in the corner of the eye and do not leave the eggs forty-eight hours alone, but observe the heat of the eggs after 12 hours.

The thermometer will show about the warmth of the incubation room, but it is not to be relied upon. First then observe the thermometer, test the warmth of the eggs in the corner of the eye, and when this is good, then maintain this warmth throughout the whole incubation period. A rise of temperature at the end of the incubation time is entirely unnecessary. From the third day, the eggs must be turned twice a day, but it is not important if this is omitted once.

The quicksilver must not rest on an egg. Now we come to two important points:

VENTILATION AND MOISTURE: It is to the advantage of the brood if an ample renewal of the air takes place in the apparatus. But how is it to be decided whether the ventilation is ample? As warmth creates expansion of the apparatus and also rarifies the air, the greater is the difference between the temperature above the egg drawer, and the incubating room, the stronger is the ventilation. Now it can be understood why the results obtained from the broods hatched in the height of summer are so productive.

There we have a great secret of why so many disappointments are recorded in artificial hatching. The air in the incubation room must not be damper than the air over the eggs, otherwise there is no ventilation, and this is urgently necessary, especially towards the end of the incubation period. Remember the saying "When

a brood hatches out and it thunders, then is the brood lost." The large percentage of moisture in the air during thundery weather is the reason for this failure.

Now I come to very important results which I have made uninterruptedly this spring, which have given me the key to investigating the reason why birds are found lifeless in the shell.

This "dead in the shell" calamity can absolutely be avoided if only care is taken that the too damp air, which develops on the 20th day, be quickly withdrawn. I recommended in the spring the psychrometer, quite a simple instrument, intended to measure the moisture in the incubator. It was stated in an article that this instrument was not adapted for incubators, which statement was supported in a second article from other sides, by the remark that the psychrometer was entirely unserviceable. It may be perhaps too much theoretical knowledge gave rise to this opinion; practical experience was, however, not its foundation. From other sides I have been assured that, under conditions of moderate ventilation, the psychrometer is an excellent instrument for measuring the dampness of the air, and entirely by means of this instrument I was able to control the air in the apparatus. I abstain, however, from mentioning the percentage of moist air, but I will remark that a difference of only five degrees (between dry and wet thermometer) was always apparent at the beginning of the breeding season; this difference gradually rose to 9.10 and 11 degrees, and on the 20th day, at the time of hatching out, fell rather quickly to 5 and 4 degrees.

This was a sign that, on the 20th day, a very great amount of moisture had developed, and if the outlets had not worked sufficiently well, a "dead in the shell" result would have been inevitable. By withdrawing the bottom, i.e., by fixing a slotted partition which could be quickly opened, I obtained a complete change of the air, and by this means an absence of mortality. This discovery is a very important one in artificial breeding and I cannot too strongly recommend everyone to pay the greatest attention to this occurrence.

I venture to recommend the manufacturers of incubators to only deliver such apparatus that has been tested beforehand and will give a regular temperature over the egg drawers (a difference of one degree is permissible) and in addition to construct such arrangements for the ventilation, that, at any time the air can be easily changed.

Still further let me mention an occurrence which was only a confirmation of my experiments, but which caused me much thought till I found the explanation. On May 18th I put in 100 eggs, had on May 28th 88 well fertilised eggs and reckoned 80 chickens. The psychrometer showed, on May 30 a difference of four degrees, but during these days it rained very heavily, and the degree of the air in the incubation room was therefore very high (95%). Although the slotted partitions were fully opened, the difference would not rise, and no

ventilation took place. The more moisture the air, the stronger is the pressure, and the moisture and pressure of the air in the room being greater than that in the incubator, did not give the dryer air a chance to move, and in consequence prevented a change of air. The chickens picked on the shell, but could not break them. The great warmth, about 40 degrees, and the effect of the weather caused apoplexy, or something similar, and many chickens died off. At this time I knew that dryer air could save them, but I strove in vain for help.

On June 1st a second apparatus proved deficient. There was a heavy thunderstorm, the same consequences as on the day before, and then it occurred to me to bring a second apparatus quickly into the warmth, and to put all the eggs in the second apparatus. Psychrometer difference 8, the ventilation almost closed. This experiment was a step forward, new life animated all the chickens, and they were all hatched out in half an hour, very damp but living. I must admit, that of all those hatched out, only a few lived. The brood was already doomed through the cyclonic conditions. If on the day of hatching out, or a day or two before, the weather is very damp, then it has an effect upon the brood, while dry weather is extremely beneficial to the hatching out.

Now I think of the Sartorius system, Kipp incubator, and the Albrecht system. On the 19th day the lever of this is so applied, so that on all four sides, there is from 1 to 1½ centimetres of airspace between the two boxes, by this means, therefore, an ample regular ventilation takes place. The warm air presses from above, therefore the underlying layers of air must escape through the four side openings. It is difficult to explain very minutely the construction of the apparatus, but the holes on both sides in the apparatus on the Sweers system deserve full attention, and I only wish to give readers a general idea of my experiences and discoveries under certain conditions and with different apparatus. My desire is that we should not be selfish and keep our knowledge but publish it for the benefit of all interested in the poultry farming industry throughout the world.

THE PROFITS OF POULTRY REARING.

A statement on the profits to be gained by poultry-rearing was made by Dr. W. Hodgson, the chairman of the Cheshire Education Committee, at a meeting of that authority at Crewe yesterday.

During this year the Board of Agriculture, with the assistance of the Cheshire County Council, have conducted an educational experiment in poultry-rearing at Haslington, near Crewe, and Dr. Hodgson informed the Committee that many applications had been received from other counties to have similar experiments made in their areas, and that the Board intended to proceed with the demonstration in one of the eastern counties—probably Norfolk. The Board thought it advisable that the experiment should be made on a small holding in the midst of small holdings. With reference to the success of the work in Cheshire, Dr. Hodgson said it was contended by Mr. Paynter, the demonstrator, that an annual profit of at least £200 could be made upon a holding of 12 acres by rearing poultry for the market. There was so much good in the work that the committee were determined to persevere with the demonstration, and they hoped it would prove a great source of profit to small-holders and to the farming community generally.

Canon Armistead said he believed the work would be the salvation of small holdings in Cheshire.

Mr. J. W. Dutton argued that in calculating the amount of the profit the cost of an enormous quantity of foodstuffs not grown upon the holding at Haslington ought to be taken into account.

Dr. Hodgson said his statement was based upon figures which had been officially submitted and had been examined by experts.

A communication was received from the Board of Agriculture stating that they would give sympathetic consideration to any specific proposal for carrying out at a new centre in Cheshire a poultry-feeding demonstration on lines similar to those followed at Haslington, and that the grant to be made in such a case would be at the rate of approximately 70 per cent.—*The Times*.

The Effect of Salt.

An account is published in a French contemporary of the methods adopted in artificial fattening of young pigeons, in which it is stated that the birds intended for killing are fed lightly on the morning of their last day, and a few hours before killing they are made to drink about one-eighth of a pint of slightly salted water in order to whiten the flesh and give greater consistency to the fat. Here is a fit subject for experimental work in connexion with poultry fattening.

Diphtheria and Chicken Pox.

A German investigator has come to the conclusion that fowl diphtheria and chicken pox are etiologically identical.



Buff Orpington Ducks.

[Copyright.]

THE QUESTION OF TO-DAY.

A Momentous Matter Discussed.

By REGINALD WILLS.

THAT eternal question, does poultry farming pay? has been current in the world of poultry for many years past, but I wonder, reader, if you have yet thought of its appalling seriousness; of its great importance; of its many vital issues?

You, who may have read the various writings upon the subject with more or less indifference, do not perhaps realise the downfall which the industry has brought to many people. It is nevertheless plainly noticeable that such downfalls have in nearly every case been brought about by "trying to see if poultry farming pays."

I want to have a serious talk with you now if you will let me, and if you should not entirely agree with my opinions, well there will be no harm done. At any rate, I have seen many failures of which you may not have heard, and if what I shall tell in the lines that follow may not altogether be pleasant, it will certainly be true.

In a certain County, which, for obvious reasons, shall be nameless, I once knew as many as fifty farms devoted to poultry and if you were to travel over the route to-day you would not find a single

denounce poultry farming as the industry of fortune making. I deny this absolutely.

Take any poultry paper you like and look down the columns which are devoted to sale announcements, and see the number of farms which are monotonously advertised year in and year out. All these establishments give different reasons for selling off and the truth of such statements may be often taken "cum grano salis" especially when in several instances which have come to my knowledge the "owner going abroad" idea has resulted in such persons taking a job over here for about 20/- a week.

I honestly believe that poultry farming, in years to come will be made a profitable undertaking for those who have the necessary capital and experience; I cannot, however, admit that this is the case at present.

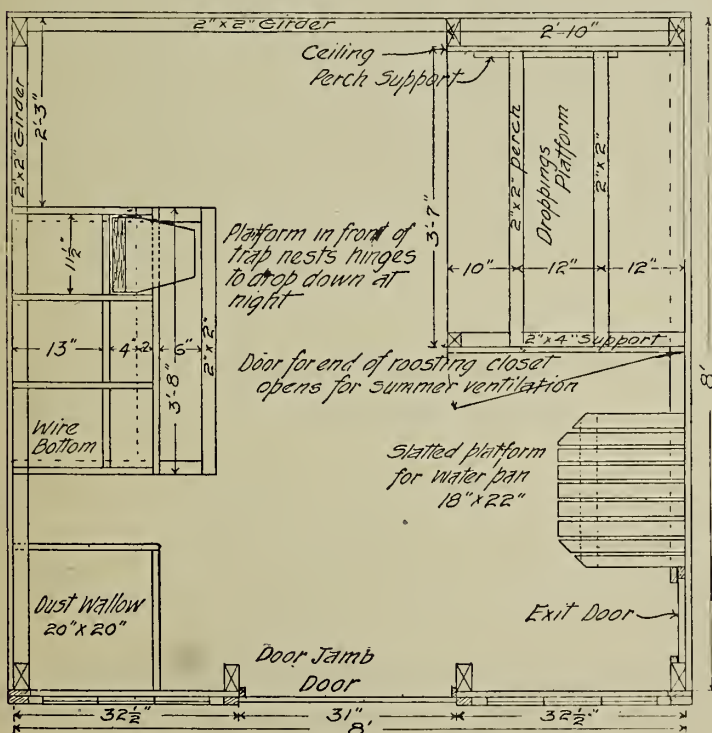


Fig. 3.

original establishment now existing. Surely, this state of affairs does not point to profit? And it is difficult to understand the persistence of those writers who will continually and unflinchingly

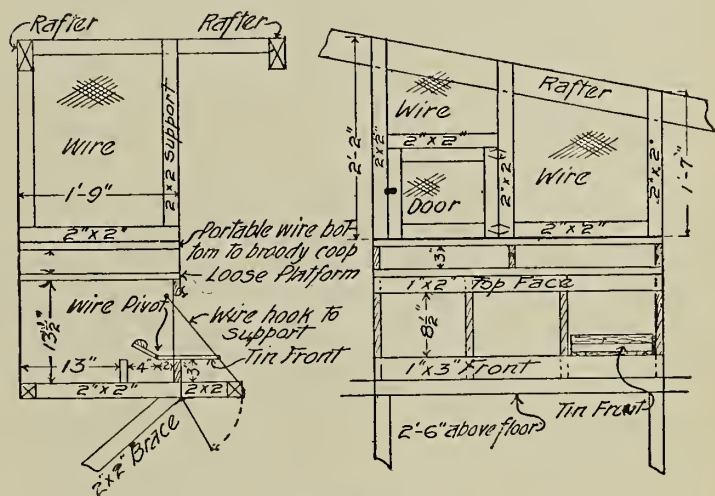


Fig. 4.

In this country to-day we have many well-to-do country landlords who have excellent grounds and spacious premises, and these, illustrated in a magazine and accompanied by an article written by a journalist who knows his subject prove splendid enticements to the unwary and inexperienced. Those who possess the least intelligence, however, must surely realise that such premises and such grounds cannot be kept up by the profits derived from poultry farming. The very idea is absurd.

And yet there are those who frankly believe that such is the case, when their unhappy experiences as a poultry farmer has decidedly proved the contrary.

There is too much theory aspect of the matter to-day, too much of the what might be and what will have to be sort of thing.

We want to fight against this if we can and leave this imaginary outlook behind us. We want to look ahead, as business people, as sensible people, and as people who have thoughts belonging to the twentieth century.

That is my opinion.

WINTER HOUSING.

THE hot weather that has been enjoyed during the past summer, has led to systems of housing that left little to be desired, but the time is drawing near when the houses should be overlooked with a view to alterations or repairs that may be necessary to secure adequate warmth and shelter against the cold nights and mornings that may be expected anytime from now onwards. Chickens reared during a dry and hot season are less able to resist cold than are those that have been reared under less favourable conditions. The open-fronted house has now become very favoured, and when they are properly constructed on a sound commonsense plan, one can quite understand their popularity since they possess many distinct advantages over the old closed up, stuffy, and badly ventilated habitations. There are many open-fronted houses that have rendered excellent service in the summer, but are quite unsuitable for the cold weather. On the other hand there are open-fronted houses which are adaptable for winter, and can be made equally as good as they are during hot weather.

There are many farms where this year's chickens are still sleeping in their coops, and there are farms where both old and young have to be content with the poor accommodation afforded by a cart shed, outhouses of every description, under the raised floor of poultry houses, or other equally unsuitable places. Under these conditions they may have thrived wonderfully well up to the present, the time, however, has now arrived when warmer and more comfortable quarters must be provided if they are to give of their best through the winter months. It is very frequently a most arduous and difficult task when fowls have been accustomed to sleep outdoors from chickenhood, to suddenly get them to take readily to roost in an orthodox house. It is, however, worth the trouble since eggs will be more abundant in winter. The birds should, therefore, be collected from coops, and elsewhere, and placed in a good roomy house where they may have warmth, light, and proper ventilation. As a matter of fact preparations should be made long in advance, against sudden frosts, so common in the mornings and evening with the approaching winter, and pullets that are on the eve of laying will sometimes get a check that is not easily overcome.

In winter housing it is very necessary that the wood of which the house is constructed be sufficiently thick to protect the inmates. Too often the material is merely match-board which has no resisting power against the severity of our English climate. The timber should not be less—at the very least than three-quarters of an inch thick, that is planed to this thickness. For the same reason the roof should also be of thick material, and sufficiently high, so that the rain and frost cannot strike through to the fowls when they are

roosting at night. Corrugated iron is excellent for the purpose provided there is a wooden roof in addition, otherwise the cold would be intensified.

A draught is one of the greatest dangers to combat, and is the cause of much trouble in the poultry yard. A little care will, however, obviate the danger, which principally arises from faulty ventilation. It is absolutely imperative that there be a thorough current of air, and this should be at the highest point, so that there is plenty of space between the roosting fowls and the current of air; the perches should also be arranged so that they are not placed where they are directly between the trap door and an open window. When open-fronted houses are used, care should be taken to ensure that the sliding screen is properly adjusted at night, and only such open-fronted houses as are provided with this essential should be employed for winter use. The screen may be left open during the day time so that the house is thoroughly sweetened before roosting time; thus the benefits of this form of house may be had, at the same time adequate warmth is provided for, which, from an economic standpoint, is of the greatest importance.

Not only is it necessary to have their sleep quarters warm and perfectly sanitary, but provision should also be made for shelter in the day. In most poultry establishments the house has to do service both day and night, this, however is a mistake, plenty of shelter should be provided in addition to the roosting place. One of the greatest deterrents to winter laying is to expose hens to wind and rain, and if day shelter, in the form of a good dry covered scratching shed, is not available, one should certainly be erected, the cost of which would be amply repaid by the increased number of eggs produced at a time of year when they command a high price.

ARTIFICIAL REARING AND HATCHING.

To the Editor of The Illustrated Poultry Record.

Dear Sir,

Having seen the report upon the outbreak of disease in poultry in Belgium by Mr. Edward Brown, F.L.S., I should very much like (if you will allow me to do so) to write a few lines upon the subject in your instructive paper.

I thoroughly realise that keeping young fowls on the same ground year after year is absolutely wrong, and also to have them enclosed in confined runs for any length of period. I have always found folding chickens in fair-sized pens good for growth, provided the pens are shifted on to fresh ground every week. I also fully agree that breeding from young stock and continuing with the same cockerels for any long period is wrong

and that weak chickens will be hatched, which might cause the present great outbreak of disease in Belgium. On the other hand I am confident that incubation has to be seriously considered.

One of the most difficult problems we shall have to contend with in the near future is hatching and rearing poultry by artificial means. It must have very forcibly come to the knowledge of many large breeders of poultry throughout the country that rearing and hatching chickens by the above method is not so easy a task as it was when the process was first introduced. The continual inbreeding year by year from birds that have been artificially hatched and reared has caused in thousands of cases chickens to hatch out delicate and very difficult to rear to *maturity*. I feel and think the main cause has been by many not taking sufficient care during the period of hatching and afterwards.

During incubation, and in breeders at different periods the temperature has been too high and at other time too low. The former is the most serious, as the birds will be hatched with *affected livers*, and though many may survive and are put into the breeding stock, they will be certain to produce delicate chickens; and this state of affairs continues year after year, birds being sold and distributed into different yards. It also has great effect in the fertility of the eggs. Nothing is as serious as a temperature rising and falling during incubation or afterwards in the brooders; the health of the bird is seriously affected in many ways; hot air incubation is more dangerous than those with water tanks, and requires more attention.

I am sure there are many old breeders who will agree with me that although a very great number more chickens are hatched annually, the greater majority are not so healthy as the old mode of hatching under hens, neither do we obtain such good results, and the same applies to the fertility of the eggs. I fully realise that there are a very great number of poultrymen in England who are experts in the art of hatching by artificial means, and can produce birds strong and healthy, but as time goes by, these birds may be mated up with others which have been badly hatched, and thus cause weakness throughout the stock. My own firm opinion is that twenty years hence, we shall find it very difficult to rear chickens by artificial means.

Our one and only method will be to hatch as many as we can under hens, so that we have always a certain number of hen-hatched stock for our breeding pens.

I have always tried if possible to buy stock birds hatched under hens, and have proved the great benefit. I have in the last two years purchased eggs in large quantities early in the season, from different breeders, and have found a great deal of weakness in the chicks, and also have heard from time to time of great losses in different big yards during the breeding season. I am confident that my theory is a sound one and

shall be very interested to hear the opinion of other breeders on the subject. I may say that I have hatched a great number by artificial means, and have had good results, but I find to obtain these results, great care must be taken during the period of incubation and afterwards; a great percentage of losses means that small profits may be turned into heavy losses. I am now living in a healthy neighbourhood, and most beneficial to the rearing and breeding of chickens, as the land is a dry suitable chalky soil, and being 800 feet above the sea level, you get an atmosphere that is clear and healthy, and you never hardly see a case of gapes or roup in chickens; the old inhabitants who have lived on the Bledlow Ridge have told me that they have always had great success with their fowls; you will often see broods of 14 or 15 chicks running about with the hen, growing rapidly, and you never hear of or see any disease.

I am sure that my early remarks will apply perhaps more forcibly in duck breeding; in this district a great number of ducks are kept but all are hatched under hens, and you often see hatches of 17 to 18; and in most instances the stock ducks have no water to swim in, but the eggs are most fertile.

I am confident that a great number of duck-breeders in this country wish that they had never used artificial means for hatching such gigantic numbers, as the birds have been largely distributed about for breeding stock, and weak ducklings have been the result, and the death records have been great through diarrhoea. What we require in incubators is a more natural heat, and not so intense. I hatched some chickens this season with an incubator invented myself at a temperature of 94° to 96°, and the chicks were very strong and healthy.

I am afraid some readers of this article will think I am exaggerating, but I am afraid ere long they will find what I have stated in the above will take place, and the great thing is to prevent it. I am a great believer and supporter of artificial hatching and rearing, but I think great improvement is required, and not so much intense heat; quite as much harm sometimes is done in brooders as in incubators.

P. A. FARRER.

The Firs,
Bledlow Ridge,
Wallingford, Bucks.

Can South Africa Export?

The Trades Commissioner for the Government of the Union of South Africa, in his annual report for 1912, calls attention to the possibilities of creating an export trade in eggs and poultry with England, more especially from September to January, when prices are highest here and lowest in those Colonies. As he rightly indicates, that will not be until production is taken up more extensively, and modern methods of collection and marketing adopted.

EGYPTIAN EGG OVENS.

The Agricultural Section of the British Association at Birmingham included a paper on the Methods of Artificial Hatching in Egypt, by Mr. W. H. Cadman, from whom we published an article with diagrams, in the POULTRY RECORD of September, 1912 (Vol. IV., page 538). As will be seen Mr. Cadman claims the art of hatching fowls' eggs by artificial heat originated in Egypt probably about 3000 B.C., when even the dead desired in the hereafter "ten different kinds of meat and five kinds of poultry." The Egyptians have long been famous for that practice, and still successfully carried it out on a large scale. The profession was traditionally transmitted from father to son, and was consequently confined to particular families. The owners of those establishments were very reserved, and travellers visiting them with interpreters were always regarded with great suspicion. That largely accounted for the very imperfect descriptions of Egyptian incubators published up to date, and the omission of all details of working. Even native Egyptians themselves, living in villages containing incubators, were completely ignorant of their internal structure and mode of working. For example, there was a general opinion among the felaheen that naked attendants actually sat on the eggs and thus utilised the heat of the human body to hatch them. Pliny mentioned that the heat of the human body was sufficient to hatch eggs, and Lewis Wright stated that that method was practised in the Philippines. Having resided in Egypt for several years in the neighbourhood of some of the incubating establishments, Mr. Cadman had gained the confidence of the native owners and was able to examine minutely the buildings and details of working, no secret being kept from him. In considerable detail he described the incubator buildings, the method of placing the eggs, and explained that the fuel for heating the incubator consisted of chopped straw mixed with the dung of cows, buffaloes, camels, and other domestic animals. Cakes of the mixture called "Gilleh" were made by the native women and dried in the sun. That combustible contained nitrates amongst its constituents, and burned very slowly, so that only a very small quantity of the glowing fuel was actually required for each oven after the eggs had been introduced. On an average each oven held about 7,000 eggs, and the fact that less than one-third of the eggs failed indicated the high standard of perfection obtained in the simple but somewhat crude working of those ancient types of incubator. It was estimated that about 185 million eggs were put in the incubators yearly, and that more than 120 million chickens were taken out last year. Mr. Cadman was consulted by the Egyptian Department of Agriculture as to the desirability of introducing European incubators throughout that country to improve the local egg industry. The results of his research, however, pointed to the

superiority of the Egyptian incubators over European, except for experimental breeding purposes. He suggested that poultry farmers in this country would do well to adopt the Egyptian type of incubator, which had been proved by a long process of time to be thoroughly efficient and capable of producing large outputs.

ROOF POULTRY-KEEPING IN THE CITY.

Mr. Alfred Woollard, the Housekeeper at 29, Mincing Lane, has been keeping poultry on the roof over the offices for the past three years.

He started in 1910 with 8 hens, in a house and scratching shed that he built at a cost of 10s. One



Chickens and Children reared on a roof garden in Mincing Lane, E.C. *Copyright.*

of the hens, named "Chuckles" going 'broody,' he bought a dozen eggs from a neighbouring dairy, and hatched off 6 chickens, which he successfully reared. Last year a farmer sent him a sitting of 9 eggs; of these he hatched 7 chickens (2 eggs were unfertile); rats took 2, and 5 were reared as seen in the photograph.

Last year Mr. Woollard had 680 eggs, and from November, 1912 to September 15th, 1913, he has collected 782.

The children, too, are roof-reared.

Silkeness in Feathers.

In a Swiss publication Herr F. Taubert records studies into feather development, in which it is suggested that silkeness and wooliness in feathers are pathological conditions resultant from environment, offering instances of acquired characters which ultimate in fixed or racial characteristics.

POULTRY COOKERY.

FRENCH METHODS OF COOKING FOWLS.

In the majority of English kitchens we have, nowadays, adopted many of the French methods of cookery; and very wisely so, I think, especially as regards the cooking of poultry, a branch of the culinary art in which French cooks undoubtedly excel. The following are a few examples of dishes which only require to be known in order to become popular, as they are not at all extravagant or difficult to prepare, while as to their exceeding daintiness there can be only one opinion.

FILLETS OF FOWL IN BATTER: Prepare and roast in the usual way a fine plump young bird, and when cold remove the skin and cut the best parts of the meat into fillets; these may be cut any size or shape, according to taste, but they form a more dainty looking dish when quite small and thin. Put the fillets together in pairs with a layer of finely-minced cooked ham between and press them to make them adhere, then sprinkle them over entirely with a mixture of salt, pepper, mace and grated lemon rind, dip them into rich frying batter, drop gently into a generous supply of boiling clarified fat and fry until just sufficiently coloured and quite crisp. Drain carefully from all fat, pile up neatly on a folded napkin, or a dish paper, garnish tastefully with crisply-fried hot parsley, and serve immediately, while the batter is still light and puffy.

FOWL BAKED IN BATTER: When the more delicate parts of the bird have been used either as above or in the making of some other dainty dish, the remainder of the meat can be utilised to great advantage as follows: Carefully strip the flesh from the bones and cut it into small neat pieces about an inch long, half an inch across, and not more than a quarter of an inch thick. Sprinkle these well with salt, pepper, mace and lemon juice, cover them over, and set them in a cool place for an hour or two. Make some nice light batter with four tablespoonfuls of flour, half a teaspoonful of salt, two or three fresh eggs and a little milk; beat the mixture briskly until perfectly smooth, and let it, too, remain in a cool place for some time before using; indeed it is better to prepare both the fowl and the batter the night previous to being required, when the weather is suitable, of course. Before using, beat up the batter again and pour a little of it at the bottom of a pie-dish; next put a layer of the fowl, distributing the pieces as evenly as possible, then add more batter, and so on until the dish is sufficiently full, letting batter form the topmost layer. Bake in a well-heated oven until thoroughly set, and well browned, the exact time being regulated according to the size of the dish. When done enough, turn out very carefully on to a hot dish, garnish with plenty of curled bacon, sprigs of parsley, and slices of fresh lemon, and send to table as quickly as possible.

FOWL A LA PARISIENNE: Choose a large plump bird and after preparing it in the usual way, stuff it with pleasantly-flavoured sausage meat, or veal forcemeat if preferred, and roast it carefully. When done enough, remove all fastenings, place the fowl on a hot dish, surround it with a dainty ragoût prepared as below, and serve very hot.

To make the ragoût proceed as follows: Put into a stewpan the following items all of which have been previously cooked: small balls of sausage-meat, half-inch squares of ham or bacon, button mushrooms, the red part of a carrot cut in jullienne strips, a small turnip scooped out in rounds the size of peas, and some chestnuts roasted, peeled, and cut in quarters. Pour over all some rich creamy brown sauce, add a glass of Madeira, bring gently to boiling point, then use as directed.

SAUTED FOWL A LA VERSAILLES: When the bird has been properly prepared, cut it up into neat joints and slices; season these pleasantly with salt and pepper and place them in a stewpan with a tablespoonful or two of fine salad oil, four medium sized onions peeled and cut in thin slices, a bunch of savoury herbs, four or five tomatoes cut in pieces and two or three chopped capsicums; fry together for a quarter-of-an-hour, then add three ounces of lean ham cut in small pieces, two ounces of roux, a pint of good brown stock and a dozen button mushrooms cut in quarters, and simmer gently and steadily for three quarters of an hour, carefully removing any fat which may rise to the surface during the process. When done enough, take up the fowl and arrange it neatly on a hot dish, then put it in the oven for a few minutes. Rub the contents of the stewpan through a sieve, add a flavouring of sherry if acceptable, re-boil, and pour carefully over the fowl; garnish with hot hard-boiled eggs cut in quarters and sprinkled lightly with finely chopped parsley, and small, even-sized baked tomatoes and serve at once.

The value of hill-climbing trials.

No phase of motoring competition forms such a true criterion of a motor car's efficiency as hill-climbing at racing speeds. To start from rest and accelerate to 40 miles an hour on steep gradients imposes abnormally severe strains throughout the whole of a car's transmission gear, while to negotiate sharp corners, with which the roads chosen for these events usually abound, necessitates that the car shall be readily susceptible to the driver's control.

It is to the recognition of these facts that one must attribute the keen interest shown by motorists in the series of classic hill-climbing competitions this season, just concluded with the one at Pateley Bridge, promoted on Saturday last by the Yorkshire A.C. A representative entry of over a score of cars had been secured for the All-comers' Event, with the astonishing result that every prize offered, with one exception, fell to the competing Talbot Cars. These were the silver cup for fastest time, in winning which the 25 h.p. Talbot beat the previous record for the hill by no less than 14 secs., and the silver cup and gold medal offered as 1st and 2nd handicap prizes for the fastest climbs by cars based on their relative weights and h.p. Both of these were won by 12 h.p. Talbots, the winning car gaining the special award offered by the Royal Automobile Club for the most meritorious performance of the day.

POULTRY HOUSES IN DENMARK.

By W. A. Kock.

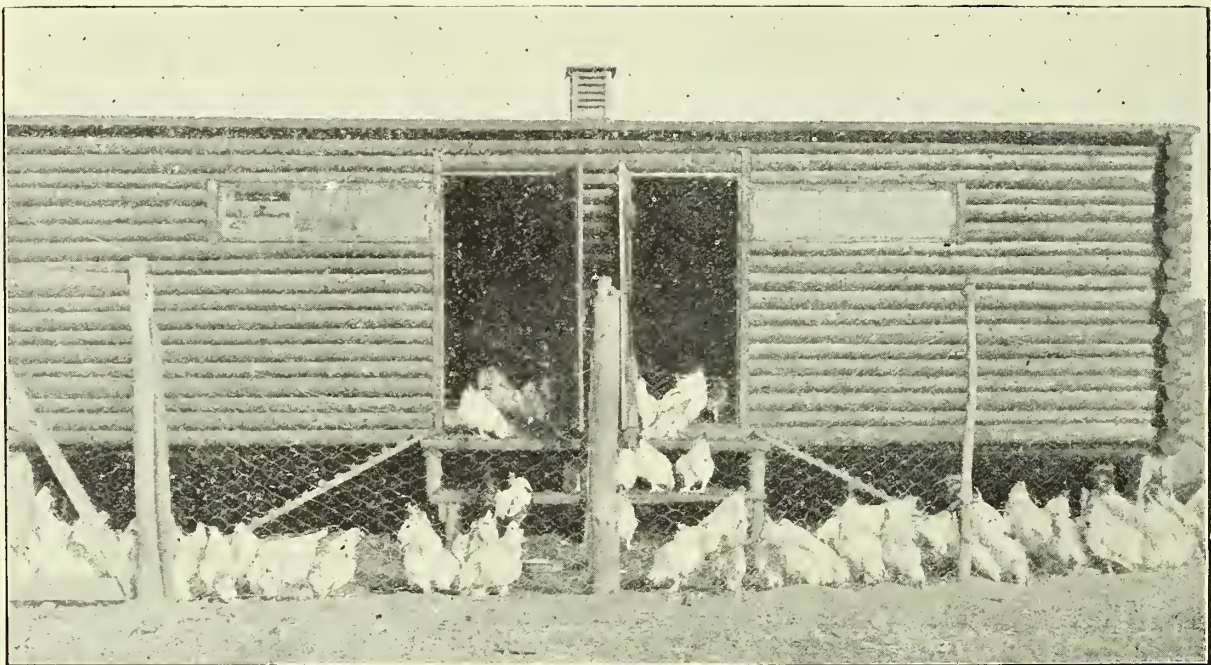
A poultry house with scratching shed under the sleeping compartment.

The sleeping room is raised about 1 c.m. from the ground, for in this manner a scratching shed is made under the sleeping room. The house is built of back board fir timber and divided into two parts. It stands on 9 cement columns, and has a size of 4 by 8 c.m., and is $2\frac{1}{4}$ c.m. high in front, and $1\frac{1}{2}$ in the rear. In the south front are placed two windows and two doors, in the east and west small windows, and on the roof a ventilation shaft. Over the floor is laid a layer of beaten clay and the scratching shed is surrounded on the three sides by mats. The poultry house has space for 50 hens.

the other hand has a large economical signification for the many small farmers.

The first illustration is taken from a large poultry farm on the island of Funen. On every side of the road are placed poultry houses of the same construction and made on the American system. In the front of the houses facing south are placed several windows. The houses are built of timber inside covered with roofing paper, and have a measure of $7\frac{1}{2}$ c.m. in length and are $3\frac{1}{2}$ c.m. deep. Inside the houses near the back wall are placed the perches, and on the other side the nests, drooping boards are used, and the floor consisting of earth is thickly covered with sand. Every poultry yard is planted with fruit trees and green.

In the morning the hens, all Plymouth Rocks, have soft food and corn in the evening.



A Poultry House with a Scratching Shed beneath.

[Copyright.

Poultry house arranged at the end of an addition to a building.

The poultry house shown on this illustration is made for 50 hens, and has a measure of 3 by 4 c.m. The house is laid on a cement basis, and built of timber inside covered with roofing paper. The whole house forms a scratching shed in this way. The sleeping room which is found in the east side of the building is raised about 1 c.m. from the floor. In the east side of that compartment are found two small windows and a window in the roof of the scratching shed, and another in the west side. The floor is of cement and on the south are placed two large doors. In the scratching shed are trap nests which easily can be seen on the illustration.

Poultry farms in Denmark.

Large poultry farms seems as a rule not to do well in our country, where poultry breeding on

The average laying of the whole flock was 121 eggs per hen, and the profit about 3 shillings per hen.

The other illustration shows a breeding centre for barred Plymouth Rocks in Denmark. On the left side of the photo is seen a house for small chickens, and one of the poultry houses built on the American system with windows in the front side, and on the right the special house for the different breeding pens. In all the poultry houses are found trap nests, and artificial hatching and breeding are used. The chickens each year are toe marked after the best hens and cocks. Corn is used in morning, soft food in evening, and in the middle of the day a lot of green food is given, especially alfalfa. The profit was last year about 4s. 6d. per hen. The eggs for hatching and the sale of breeding birds are placed in the account to common market value.

TWO HEADS ARE BETTER THAN ONE.

Mr. J. S. Parkin has sent us an interesting account of his experiences in poultry rearing in connexion with his employer over a period of $1\frac{1}{2}$ years. Previous to these two coming together Mr. Spencer had read many books on the subject, but although his theoretical knowledge was of quite a good nature he was somewhat lacking in practical application. He tried to make a flock of 300 a successful venture but failure was his only reward. Then one day in conversation with Mr. Parkin, who emphatically asserted that there was money to be made by poultry rearing, they came to a mutual arrangement (and incidentally a wager) that if Mr. Spencer would provide the necessary appliances, stock, and labour Mr. Parkin on his part would prove a profit. There was nothing at all with which to start operations, so one pen containing four Rhode Island Red hens and one cock was purchased for £5, together with six cross breeds at 2/6 each. In May close on 300 head were ready to sell, and this was the real beginning of a successful business.

During the one-and-a-half years that Mr. Parkin had charge of the farm he tells us that the stock reared and sold paid for all appliances, twenty-six pullets lost by foxes, and his wages (25/- weekly), together with travelling expenses to shows. An unforeseen occurrence happened which compelled Mr. Spencer to leave his residence "Sunny Court, near Harrogate" and the entire stock and fitting had to be sold, particularly unfortunate that this took place at a very bad season for selling, else the audit of accounts would have shown a far better margin. Still, after disposing of everything and taking into consideration that only $1\frac{1}{2}$ years had elapsed the balance sheet showed a clear profit of £86, which was distinctly favourable and shows that judicious and conscientious poultry farming will pay.

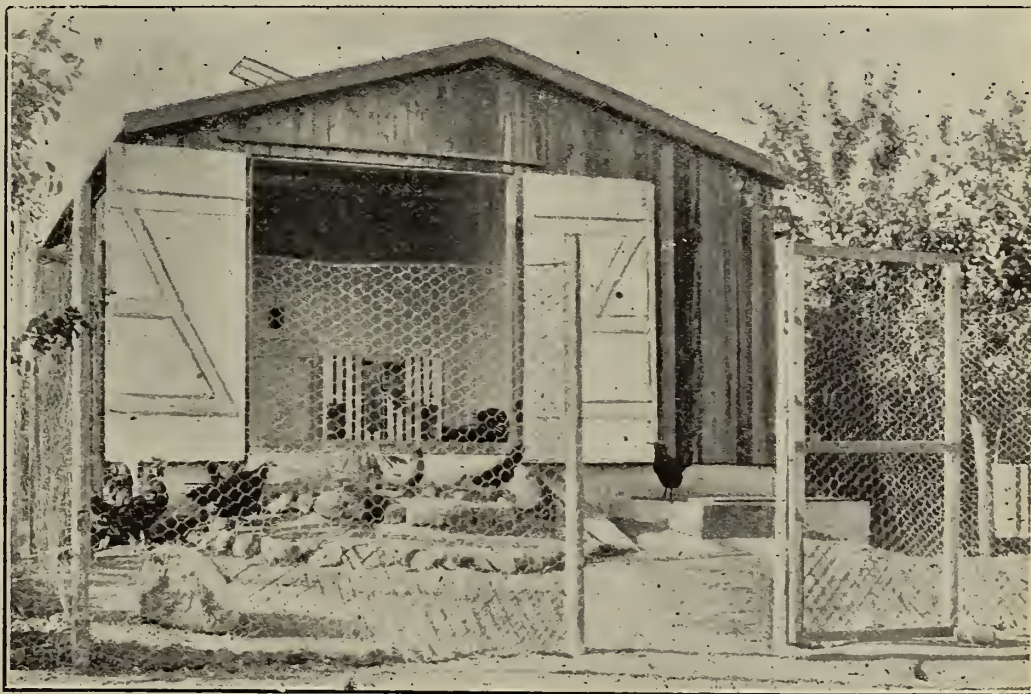
Mr. Parkin goes on to emphasize that it is only absolute concentration to one's duties that will produce results like this—long hours and many nights of sleep have to be sacrificed in order to come out at the end of the year with flying colours. The acute attention which Mr. Parkin displayed all through was the means of his breeding many prize birds which took all before them in this district, and the aim he had in view was to produce a Palace Winner. Even one pullet alone obtained five firsts and 2 seconds.

MORE ABOUT EGG-PRODUCTION.

A very interesting booklet under the above title has been produced by Mr. Ralph R. Allen of Sawbridgeworth, Herts. To anyone who is keen on the production of eggs during the winter this publication should be extremely valuable. It is full of practical hints on the best methods to adopt, in addition to which diagrams and figures are given to prove the statements made with regard to egg production. Mr. Allen strongly advises the adoption of Colman's Poultry Mustard for increasing a hen's output because of its warmth-giving properties and its fortifying effects on the stamina of the birds. Such questions as follow are capitally discussed:—

- (1) Egg-farming. Its prospect and requirements.
- (2) Considerations when commencing to keep poultry.
- (3) General hints concerning egg production.
- (4) Winter egg production.
- (5) Mustard considered a poultry food.
- (6) What other poultry-keepers say concerning mustard.
- (7) Egg-farming from an agricultural stand-point.
- (8) Personal experiences of British agriculturists.
- (9) Profitable breeds from the utility point of view.
- (10) Sundry useful hints.

The last twelve pages in this production should



A Poultry house arranged at the end of an addition to a building. [Copyright

prove most serviceable to all poultry-keepers as each page is devoted to a month in the year, and takes the form of a register whereby a complete record of daily layings can be recorded. A copy of this booklet will be sent free of charge to any of our readers. Write Ralph R. Allen, Sawbridgeworth, Herts.

"HOME COLONISTS."

By Miss ROWE.

Nearly every day brings with it news of a family who have been driven away from England to make a home in far off Colonies. The fathers of the families all deplore the fact that there are no openings for their sons; mothers and daughters unite in pitiful complaint of the ceaseless struggle with domestic problems, and the impossibility of making a home in this poor played-out old country. And so they realise every possible asset, and with the utmost cheerfulness and good will expatriate themselves. They spend some of their needed capital in steamship fares and the cost of carrying with them their most cherished possessions, and start life in the New Country, with all its conditions new and strange, and difficulties increased for them until they grow accustomed to their fresh pitch, and the vagaries of its climate. For all the most blessed countries have peculiarities of climate to contend with. It is customary for that of England to be abused—but it undoubtedly has its good points! Hear an Australian talk with contempt of "spoon-fed" farming and gardening here, and compare with it the labour of watering fields in Australia! Canada occasionally suffers from drought, or too much rain, but the country is so vast that the news of it is necessarily vague.

With the old life resolutely dismissed, men cheerfully undertake tasks that would have been dismissed as impossible—at home. The mothers and daughters are no whit behind in enterprise, and, putting all ideas of convention and custom away, tackle and overcome duties and difficulties they would never have thought of undertaking—at home. So the emigration continues, and as the business of life must still be carried on, the places filled with varying success by these people have to be filled by others. And whilst Englishmen and women are opening up the New World, and by degrees insensibly creating an Old World atmosphere of convention there, foreigners or other English people more content or less exigent, make a comfortable living under the old tiresome conditions.

As we are all children of a larger growth, why not humour our own whims and fancies, only, instead of really embarking our little all in a strange country, and facing the inconveniences, to say nothing of the expenses of the journey, let us *pretend* we are emigrating, and merely try life in another county, or a distant part of our own country, which would probably be almost as new and strange to most of us as Canada, or Australia, or Rhodesia.

Take an average family from an average London suburb. Mr. Robinson Crusoe is a business man, and has made gardening and poultry keeping one of his chief recreations. Mrs. Crusoe is a thoroughly domesticated, house-proud woman (and there are many left, in spite of the "feminist movement").

Young Robinson is a well-built, athletic young man, with no taste for an office life, but a very good idea of engineering; Mr. Crusoe cannot see his way, however, to meet the expenses of his son's training. Young Robinson is only able to indulge his bent at Polytechnic classes, or it may be at the technical classes of the L.C.C. school in the evening. Miss Robina has been well grounded in arts domestic, and fills in her spare time with a little tennis, and music, some dances in the winter, and the usual inexpensive recreations of the average English suburban girl. The young brother and sister are just leaving school, and there arises the problem of what to do with them. Mrs. Crusoe and her elder daughter have endless trouble with their unsatisfactory servants, and declare the matter is beyond their solution. Although they could and would make light of the work of the house, and would be far happier in the doing of it in their own way, it is impossible to alter their way of living, and be independent of all but just rough help—because the neighbours might sneer. Of course, there are little inconveniences in the construction of the house that add to the labour, and if Mrs. Crusoe and her daughter had been consulted by the architect they could have pointed out all kinds of little inexpensive, labour-saving contrivances, such as tile-lined scullery, water laid on to fixed basins in the bedrooms—as in America—a service-lift from the kitchen to the dining-room, proper cupboard accommodation, an ash-shoot, and other housewifely joys. But being hampered by consideration of what Mrs. Over-the-way might think, the Crusoe family continue to endure to discomfort and expense of sloppy, slip-shod servants, until Mr. Crusoe finally decides that a change must be made. He is getting on in life—although nowadays a man is in his prime at fifty—there are younger rivals in business creeping up, and new methods make it difficult for the old business to prosper. Expenses go up and still up, but incomes show a decided downward tendency, so they decide to cut their loss, and emigrate.

But if the Crusoe family would only realise it, there is a joyous and money-giving life waiting for them in England, if they would seize the opportunity. If they went out to the colonies, the women would have to do all their own work, together with a large part of the work that in England is left to men. They have settled the domestic servant problem finally—there are no domestic servants. The men and boys would have to tackle all sorts of strange jobs (and if they were practical fellows, would contrive to worry through with them). Let them therefore up-root themselves from Surrey and migrate to, say, Yorkshire, or flit from Hertfordshire to Devon. Their capital might be worthily invested in some land, the architect with the hearing ear might be consulted, or an existing house be improved to their needs, and then they could live their colonial lives if they would—but without the discomforts and the numberless risks. Let Mrs. Crusoe and her daughter rule the

TABLE OF PRICES REALISED FOR HOME, COLONIAL, AND FOREIGN POULTRY, GAME, AND EGGS FOR THE FOUR WEEKS ENDING SEPTEMBER 20, 1913.

FOREIGN POULTRY—LONDON MARKETS.									
DESCRIPTION.	PRICES REALIZED DURING THE MONTH.				COUNTRIES OF ORIGIN.	CHICKENS. Each.	DUCKS. Each.	DUCKINGS. Each.	TURKEYS. Per lb.
	1st Week.	2nd Week.	3rd Week.	4th Week.					
Surrey Chickens ...	3/0 to 4/6	3/0 to 4/0	3/0 to 4/0	3/0 to 4/0	Russia	1/9 to 1/9 1/2	—	—	—
Sussex "	3/0 " 4/6	3/0 " 4/0	3/0 " 4/0	3/0 " 4/0	Belgium	—	—	—	—
Boston "	2/0 " 2/9	2/0 " 3/0	2/0 " 3/0	2/0 " 2/9	France	—	—	—	—
Essex "	2/3 " 3/3	2/0 " 3/3	2/0 " 3/3	2/0 " 3/3	United States of America	1/9	—	—	—
Capons	5/0 " 7/0	5/0 " 6/0	5/0 " 6/0	4/6 " 5/6	Austria	—	—	—	—
Irish Chickens	1/9 " 2/9	1/9 " 2/6	1/9 " 2/9	1/9 " 2/6	Canada	—	—	—	—
Live Hens	1/6 " 2/6	1/9 " 2/6	1/6 " 2/6	1/6 " 2/6	Australia	—	—	—	—
Aylesbury Ducklings	2/6 " 3/3	2/6 " 3/6	2/6 " 3/6	2/6 " 3/6					
Ducks	—	2/3 " 3/0	2/3 " 3/0	2/3 " 3/0					
Goslings	5/6 " 7/0	5/0 " 6/6	5/0 " 6/6	5/0 " 7/0					
Turkeys, English	—	—	—	—					
Guinea Fowls	—	—	—	—					
IMPORTS OF DEAD POULTRY & GAME. MONTH ENDING AUGUST 31ST, 1913.									
COUNTRIES OF ORIGIN.	PRICES EACH DURING MONTH.				COUNTRIES OF ORIGIN.	Poultry. £ 12	Game. £ 32	Declared Values.	
	1st Week.	2nd Week.	3rd Week.	4th Week.					
Capercailzie	—	—	—	—	Russia	£ 1,307	—	£ 1,425	—
Black Game	—	—	—	—	France	—	—	—	—
Partridge	—	—	—	—	Austria-Hungary	—	—	—	—
Quail	—	—	—	—	United States of America	—	—	—	—
Bordeaux Pigeons	—	—	—	—	Other Countries	£ 21,313	—	—	—
Hares	—	—	—	—					
Rabbits	—	—	—	—					
Suile	—	—	—	—	Totals	£ 22,632	—	£ 1,457	—
IMPORTS OF EGGS. MONTH ENDING AUGUST 31, 1913.									
DESCRIPTION.	1st Week.	2nd Week.	3rd Week.	4th Week.	COUNTRIES OF ORIGIN.	Quantities in Gt. Hund.	Declared Values.		
	Per 120.	Per 120.	Per 120.	Per 120.					
Irish Eggs 9/6 to 11/0	9/6 to 11/0	10/6 to 11/9	10/6 to 11/9	11/6 to 12/9	Russia	1,101,338	£ 435,052	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Denmark	383,846	£ 182,499	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Germany	11,372	£ 4,650	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Netherlands	69,294	£ 34,892	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	France	51,169	£ 23,941	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Italy	53,696	£ 24,061	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Aust.-Hungary	27,782	£ 11,041	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Other countries	62,629	£ 25,367	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Totals	1,761,126	£ 741,503	—	—
FOREIGN EGGS.									
DESCRIPTION.	1st Week.	2nd Week.	3rd Week.	4th Week.	COUNTRIES OF ORIGIN.	Quantities in Gt. Hund.	Declared Values.		
	Per 120.	Per 120.	Per 120.	Per 120.					
French ...	9/6 to 11/0	10/6 to 11/9	10/6 to 11/9	11/6 to 12/9	Russia	1,101,338	£ 435,052	—	—
Danish ...	9/6 " 11/0	10/6 " 11/9	10/6 " 11/9	11/6 " 12/9	Denmark	383,846	£ 182,499	—	—
Italian ..	9/3 " 10/3	10/0 " 11/0	10/3 " 11/3	10/9 " 12/0	Germany	11,372	£ 4,650	—	—
Austrian ..	7/3 " 8/6	7/9 " 9/0	7/9 " 9/0	7/9 " 9/9	Netherlands	69,294	£ 34,892	—	—
Russian ...	7/3 " 8/6	7/9 " 9/0	7/9 " 9/0	8/0 " 9/3	France	51,169	£ 23,941	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Italy	53,696	£ 24,061	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Aust.-Hungary	27,782	£ 11,041	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Other countries	62,629	£ 25,367	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Totals	1,761,126	£ 741,503	—	—
ENGLISH EGGS (Guaranteed New-Laid).									
MARKETS.	1st Week.	2nd Week.	3rd Week.	4th Week.	COUNTRIES OF ORIGIN.	Poultry. £ 12	Game. £ 32	Declared Values.	
	Per 120.	Per 120.	Per 120.	Per 120.					
LONDON	11/- to 12/-	11/- to 12/-	11/- to 12/-	11/- to 13/-	Russia	£ 1,307	—	£ 1,425	—
Provinces.	Eggs per dozen.	Eggs per dozen.	Eggs per dozen.	Eggs per dozen.	France	—	—	—	—
CARLISLE	1/3	1/3	1/3	1/4	Austria-Hungary	—	—	—	—
BRISTOL	1/1	1/2	1/2	1/2	United States of America	—	—	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Other Countries	£ 21,313	—	—	—
	Per 120.	Per 120.	Per 120.	Per 120.	Totals	£ 22,632	—	£ 1,457	—
ENGLISH GAME—LONDON MARKETS.									
DESCRIPTION.	1st Week.	2nd Week.	3rd Week.	4th Week.	COUNTRIES OF ORIGIN.	Poultry. £ 12	Game. £ 32	Declared Values.	
	Each.	Each.	Each.	Each.					
Grouse	3/0 " 3/6	3/3 " 3/9	3/0 " 3/6	3/3 " 3/9	Russia	£ 1,307	—	£ 1,425	—
Partridges	2/0 " 2/6	—	2/0 " 2/6	2/0 " 2/6	France	—	—	—	—
Pheasants	—	—	—	—	Austria-Hungary	—	—	—	—
Black Game	—	—	—	—	United States of America	—	—	—	—
Hares	3/0 " 3/6	—	2/9 " 3/3	2/9 " 3/3	Other Countries	£ 21,313	—	—	—
Rabbits, Tame	1/0 " 1/6	1/0 " 1/6	1/0 " 1/6	1/0 " 1/6	Totals	£ 22,632	—	£ 1,457	—
" Wild	—	—	—	—					
Pigeons, Tame	—	—	—	—					
" Wild	—	—	—	—					
Wild Duck	1/6	—	—	1/9					
Ptarmigan	—	—	—	—					
Sand Grouse	—	—	—	—					
Hazel Hens	1/1	—	1/1	1/1					

house and part of the garden, and as much of the poultry run as lies within their power could be left to the boy and girl, who would probably have already taken an interest more or less pecuniary in providing eggs and birds for the old home. Let them open a pleasantly fitted, well-arranged dining room, and feed motorists. If they are far from a town, let them lodge motorists and their cars. Oh, yes, there are a number of people already doing it—but doing it badly. They are half-hearted about it, and hire unnecessary labour. A really well-cooked and daintily served plain table d'hôte lunch and dinner would prove a veritable gold mine. Mr. Crusoe's gardening lore would stand him in good stead, and home-grown fruit and vegetables and poultry would find a ready home market. Flowers could be added, for visitors will buy floral souvenirs of a country trip. Young Robinson could start a repairing garage. With the help of a handy small boy, Mrs. Crusoe and the two girls could manage the cooking and the waiting at table between them. They would thus have their Colonial life, and still get all the recreation they would need—and more than they would ever find in a small township in the Colonies—without having to leave their own country. The key-note of the Colonies is self-reliance. Let the Crusoes try bringing their self-reliance, their enterprise and disregard of convention, and their exhaustless energy to bear in England before leaving for fresh fields and pastures new. English needs can be served in the present and the future as they were in the past—if only English people will agree to do the same work at home that would have to be done abroad.

Poultry Expert in New South Wales.

The appointment of an additional poultry expert promised by the Minister for Agriculture over a year ago has at last been made, the choice having fallen on Mr. J. Hadlington, Manager of the Grantham Stud Poultry Farm, (says the *Sydney Herald*). The salary is £300 per annum, and in response to the advertisement by the Public Service Board about 40 applications were sent in. Several interstate experts were amongst the number. Subsequently nine were selected as having a reasonable claim for the position, and these were personally examined by Mr. Valder, acting Under-Secretary for Agriculture and Mr. Potts, principal Hawkesbury College, assisted by a representative of the Public Service Board. Although most of the nine had strong claims for the vacant position the committee finally decided that Mr. Hadlington's qualifications outweighed those of the other eight aspirants.

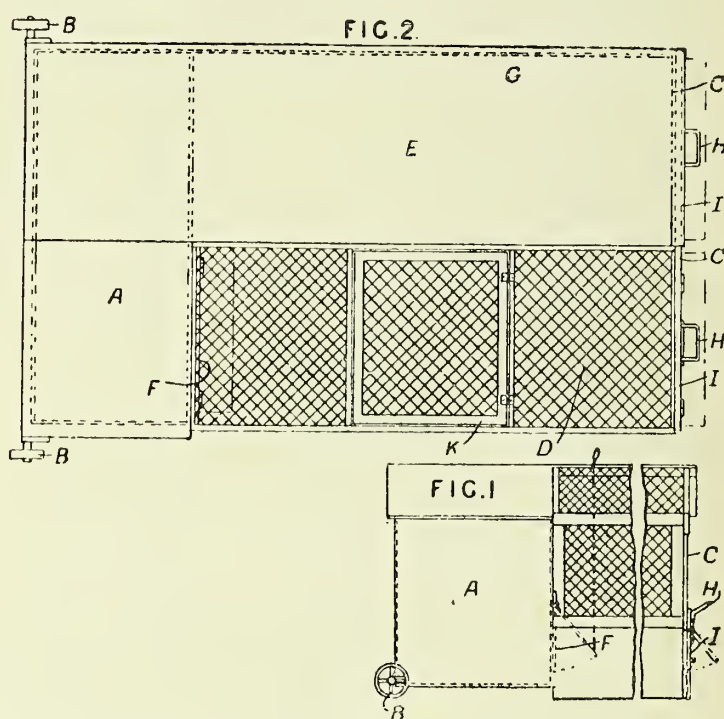
A Commercial Test in South Australia.

"A commercial test" is another of Mr. Laurie's schemes which he is preparing to put into practice. It is his intention to thoroughly test the intensive system, of which we hear so much about nowadays. Two scratching shed system houses are being erected and will accommodate 1000 pullets on a commercial plan. Each house will have five divisions, and there will be 100 pullets in each. He does not anticipate any difficulty in securing ten entries of 100 pullets. There can be no question that the above will be a most convincing demonstration, and a valuable guide to those contemplating breeding poultry on a large scale for egg production, more especially if it is carried out by one with the long and practical experience of Mr. D. T. Laurie.

A PATENT POULTRY HOUSE.

9522. A Patent Poultry House. CASE, T. H., Stanfield, East Dereham, Norfolk. April 22nd. *Period for granting Patent not yet expired.* [Class 5 (ii).]

In a portable fowl house which includes in one structure a scratching house A, roosting house E, and a run D, the house A is mounted on wheels B and its sides are extended rearwards to form, with the end wall C, the house E and the run D. Access to the part A is gained by a door F adapted to be opened or closed from the outside by cords &c. The roosting house E is provided with a roof G and



the run D with a wire-netting top and side and a door K. Nest boxes may be attached to the wall C beneath the roof G or in the run, in the latter case being provided with covers to protect them from the rain. Doors I give access to the nest boxes, and handles H, are provided for removal purposes.—*From The Illustrated Patents Journal.*

A reformatory poultry plant.

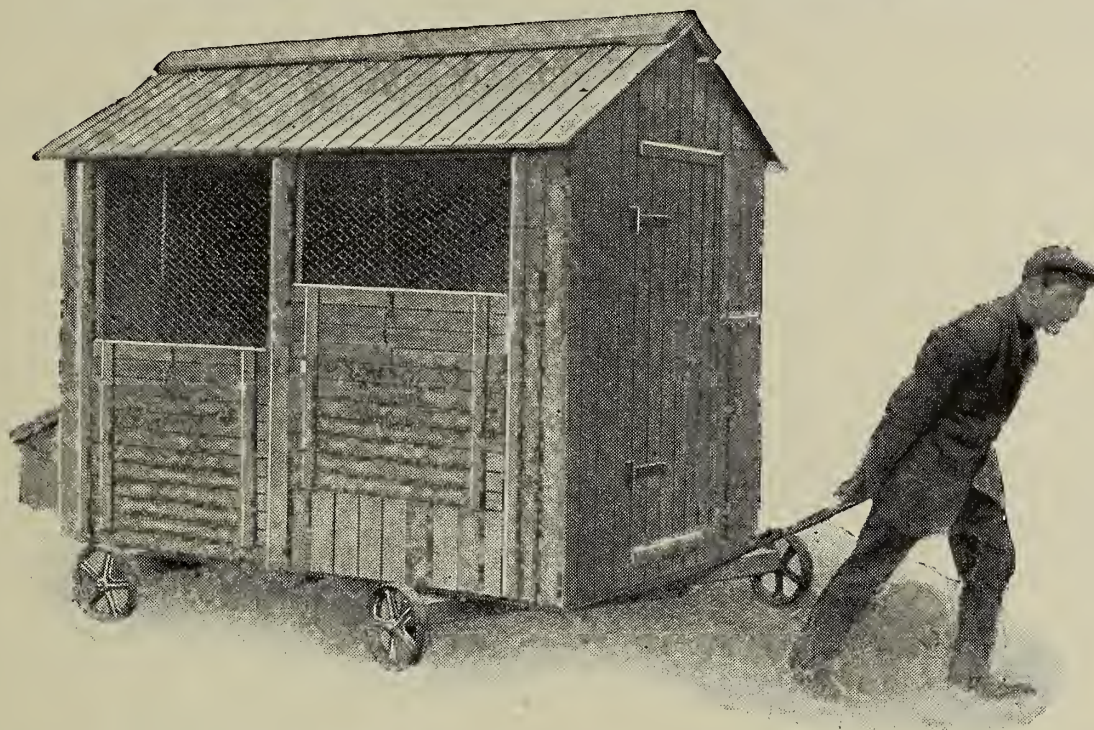
It is recorded that the Fulton County (U.S.A.) reformatory has a large poultry plant, where the young inmates are taught this business, and given a real interest in the work. The effect of such training upon their future cannot fail to be great.

St. George's Hall.

Mysteries are always attractive. These are provided plentifully by Messrs. Maskelyne and Devant, at Langham Place, as there seems no end to their combinations. Just now the programme is specially attractive, what with Electric Culture, A.B.C. Fly, The Crystals, A Pillar Box Delusion, and the Disappearing Donkey, to say nothing of other items, and remarkable juggling with clubs. The mental stage of wonderment in which visitors are left is great in the extreme.



POULTRY HOUSES.



If you want to purchase a Poultry Houses with economy, observe our designs, and look carefully at the workmanship, and form your own opinion of their value. Nothing is left undone by us to make every house we sell most excellent value from every possible point of view. Seasoned timber—practical designs—perfect workmanship can always be looked for—and always found. Increases in the cost of materials and labour have only made us the keener to give better value than ever, and each customer has our assurance that nothing leaves our factory that cannot survive the most keen criticism, or fall short of perfection in the smallest item.

The above house, as illustrated, demonstrates the characteristics of all the TAMLIN Appliances, for it is the only Poultry House manufactured to run on four wheels that can be turned in any desired direction without the antiquated method of having to lift the House by the front wheels round in the direction required. The House is built on a movable half-lock under carriage, which makes it possible to turn it completely round in its own length,—one of the many items that go to make the TAMLIN different to all others, and the price, when taking into consideration that it is complete with nest boxes, is the lowest in the country. It's the TAMLIN'S simplicity, quality and efficiency **all the time.**

Our Catalogue is at your service, with over sixty different sizes and designs of Poultry Houses to choose from, together with two hundred other beautiful illustrations (which are actual reproductions from photographs) of Appliances for all classes of Poultry Breeders and Keepers—its free and post free on application to

W. TAMLIN, 40, St. Margaret's, Twickenham, London, S.W.

THE LARGEST INCUBATOR AND POULTRY APPLIANCES MANUFACTURER
IN THE WORLD.

THE POULTRY CLUB.

—o—

The monthly meeting of the Council of the Poultry Club was held on Friday, September 12th, at the London Chamber of Commerce, Oxford Court, Cannon Street, London, E.C.

There were present Mr. L. C. Verrey in the chair, Captain Ralph B. Allen, Dr. S. E. Dunkin, and Messrs. G. Tyrwhitt-Drake, William Rice, Albert Smith, P. H. Bayliss, C. H. Goode, and T. Threlford, Hon. Secretary and Hon. Treasurer.

The Minutes of the last meeting were read and confirmed.

Many new members were elected.

The following Societies were duly associated :—

Llandridod Wells Fanciers' Association, secretary, Mr. C. E. Gregson, Hill Cottage, Llandridod Wells.

Gloucestershire County Fanciers' Society, hon. secretary, Mr. J. Cooper, Awefield House, Upton-St.-Leonards, Gloucester.

Edenbridge and District Fanciers' Association, hon. secretary, W. Walter, Edenbridge.

Maidenhead and District Fanciers' Association, hon. secretary, Mr. E. A. Bristow, 36, King Street, Maidenhead.

Red Orpington Club, hon. secretary, Mr. H. Sellings, Brook House, Hellingly.

The following shows announced to be held under Club rules were granted specials :—

Yokohama Club Show, Southend and District Show, Orpington Duck Club Show, Llandilo Poultry and Pigeon Show, Witham and Essex County Fanciers' Show, Exeter and Devon Fanciers' Show, Brown Leghorn Club Show, Braintree Fanciers' Association, S.E. Essex and District Horse and Foal Show (Poultry Section), Mumbles Fanciers' Society, and Beckenham Smallholders' Society.

Correspondence. Various letters were read and left in the hands of the Secretary to deal with.

Truro Show. The Secretary of the Cornwall branch reported that the County Committee had investigated the protest lodged at this Show. The objector wished to withdraw his protest, as he was under a misapprehension, and the County branch recommended that this be allowed.

Lantern Slides. Mr. C. S. Goode read a list of slides he suggested should be obtained, and after some discussion it was thought advisable to get an estimate of the cost of same.

Annual Report. The draft of the Annual Report was considered, and after one or two alterations passed to be submitted to the General Meeting.

A Report was read from the Worcestershire, Warwickshire, and Staffordshire branch.

The next Meeting of the Council will be held at the London Chamber of Commerce, Oxford Court, Cannon Street, London, E.C., on Friday, October 10th, at 2 p.m. All prospective members' names must reach the Hon. Secretary on or before October 2nd, and if residing in a County having a branch through the Secretary of same. T. Threlford, Hon. Secretary and Treasurer, 2, St. Luke's Square, Victoria Docks, London, E.

NORTHERN UTILITY POULTRY SOCIETY.

ANNUAL GENERAL MEETING.

List of entries for twelve months laying competitions.

The great interest that is being shown in the doings of the above Society was demonstrated by the attendance at the annual general meeting, held at the Central Club, Burnley, on Tuesday last, about 85 members being present. Mr. C. G. Skipper occupied the chair. The hon. secretary (Mr. C. Longbottom) gave a résumé of the year's work, mentioning the various discussions that had taken place on topics of great interest to all poultry-keepers, such as "Intensive methods of poultry-keeping" and "Hatching and rearing of chickens," and the lectures by Mr. Dobbin, the poultry instructor of the County Council farm, Hutton. He also gave particulars as to the coming twelve months' laying competition, which will shortly commence on a three-acre plot on the small holdings. He said that, with a view to gaining further knowledge, it was the intention of the Society to test the rival merits of wet mash feeding with that of the dry mash method, and for this purpose 12 birds of a well-known laying strain were to be placed in one side of the small cabins (having a large grass run), and throughout the competition would be fed with a dry mash composed of the same ingredients as that of the wet mash with which the competitors' birds were to be fed. The dry mash will be continually before the birds, and it will be instructive to find out how these birds compared in egg-production and cost of feeding with those fed by the customary method. Mr. Longbottom stated that the laying out of the competition ground was proceeding apace, and that everything would be in order by the time the birds should arrive on October 7th. One entry of Anconas was expected from Ohio, U.S.A., and this was anticipated to add no little interest to the contest. As showing the growth of the Society, the secretary mentioned that over 40 new members had been enrolled since August 1st last.

On the proposition of Mr. J. W. A. Pedley, seconded by Mr. Abel Latham, a hearty vote of thanks was extended to Mr. Longbottom for his report and work. The election of officers for the coming year resulted in the following being chosen: President, Mr. Will Hooley, Birkdale (re-elected); Vice-presidents (4), Mr. C. G. Skipper, Burnley (re-elected); Mr. J. W. Pedley, Burnley; Mr. Ernest Howarth, Burnley; Mr. J. Foulds, Nelson. Committee (3), Mr. Levi Todd, Mr. J. McClew, Mr. Joe Lambert. Honorary secretary and treasurer, Mr. Chas. Longbottom (re-elected).

ENTRIES FOR THE COMPETITION.

The plot on the small holding selected for the twelve months' laying competition is an ideal one, and, as already stated, the committee are making thorough and complete arrangements in order to ensure the unqualified success of the experiment. The birds, which will number over 400, will be accommodated in specially erected houses of the latest and most approved type, with ample grass runs, while in Mr. Dixon, who will have charge of the birds, the committee have secured the most efficient and competent manager.

As indicating the great educational value attached to the laying competitions such as the one about to commence under the auspices of the Northern Utility Poultry Society, it may be mentioned that the Utility Poultry Club is arranging two similar competitions, one to be held at the Harper Adams Agricultural College, Newport, and the other at Settlescombe, near Battle, Sussex, towards which the Development Commissioners

"COOKS' OF ORPINGTON"

Under the entire personal management of William H. Cook (Eldest Son of the Late William Cook, Originator of the Orpingtons).

"THE WELL KNOWN AND RELIABLE FIRM OF POULTRY BREEDERS AND EXPORTERS."

FANCIERS—Remember we have won thousands of Cups, Specials and Prizes, right down to date, in England and many other Countries, thus proving our own strains are the best and most reliable obtainable.

EXHIBITION AND STOCK BIRDS

Always on Sale from 42/- to £20 each.


Stock Birds for producing Winners at Smaller Shows from 21/- each.

DAY-OLD CHICKENS are supplied from our very best Breeding Pens, and hundreds of Winners are raised by our Customers from these Chicks.

EGGS FOR SITTING from all pens are offered at prices to suit Expert and Novice.

BREEDS OFFERED—

Blue, Black, Cuckoo, Buff, Jubilee, Spangled and White ORPINGTONS; Blue, White, Black, Golden, Partridge and Silver WYANDOTTES; Black, Brown and White LEGHORNS; Minorcas, Cochins, Brahmas, Sussex, Houdans, Indian and other Games; Buff, White and Barred Rocks, Polish, Langshans, Hamburgs, all varieties of Ducks, Geese, Turkeys and Bantams.

 Send for a free copy of "The Poultry Keepers' Journal." (Founded and Edited by William H. Cook). Contains help and advice to all interested in Poultry.

UTILITY BREEDERS know we are the Headquarters for pure-bred stock of the finest laying strains in this Country. Our birds have been specially bred and selected for years, and are the best possible value offered to those looking for Commercial Poultry.

HUNDREDS OF BREEDING PENS,

Consisting of a Male and 6 Females offered at from 55/- to £4 4s. the Pen.

EGGS AND DAY-OLD CHICKS from our best Utility Pens always for Sale. Every order is carefully selected and satisfaction guaranteed.

GRAND PURE-BRED COCKS AND COCKERELS,
from 8/6, 10/6 and 15/- each to suit all.

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have made grants of £225 and £207 respectively. Neither of these competitions is on so large a scale as the one to be held in Burnley, and the claim of the N.U.P.S. to a substantial grant from the Commissioners, especially in view of their past record of work, would seem to be uncontrovertible.

The widespread interest which is being taken in the Burnley competition is shown by the very large and representative entry which has been received in both the open and the local sections, there being 40 in the former, and 26 in the latter. The open section includes competitors from all parts of the country, while all the well-known Lancashire breeders who have distinguished themselves in the International competition in America, as well as the competition now proceeding at the Harper Adams College, have entered pens.

The committee are making arrangements for the publication of the results of the competition week by week, and full details will appear in the "Burnley News."

The following is a full list of entries:—

OPEN SECTION.

White Wyandottes.

1. Mr. Francis Baines, Corsham, Wilts.
2. Mr. Harry Barnes, Blackburn.
3. Mr. Tom Barron, Catforth near Preston.
4. Mr. Will Barron, Bartle near Preston.
5. Mr. R. A. Blakeborough, Brighouse, Yorks.
6. Mr. Edward Cam, Hoghton near Preston.
7. Mr. D. H. Clarke, Singleton. Poulton-le-Fylde.
8. Mr. Robert Fisher, Pilling, Garstang.
9. Mr. J. Halsall & Son, Esprick, Kirkham.
10. Mr. H. E. Qoutts, Holmwood, Surrey.
11. Mr. Abel Latham, Brierfield.
12. Mr. Geo. B. Sharp, Newton, Kirkham.
13. Mr. Henry Sutton, Little Hoole near Preston.

Buff Orpingtons.

14. Mr. John Collinson, Barnacre, Garstang.
15. Miss Marjorie Fowler, Feniscowles, Blackburn.
16. Mrs. Dalton Holmes, Newark.
17. Mr J. A. Sutcliffe, Blackpool.

Buff Rocks.

18. Mr. Robert Wignall, Walmer Bridge, Preston.

Rhode Island Reds.

19. Mr. J. H. Crowley, Chertsey, Surrey.

White Leghorns.

20. Mr. Harry Barnes, Blackburn.
21. Mr. Tom Barron, Catforth, Preston.
22. Mr. Will Barron, Bartle, Preston.
23. Mr. Brown Saffery, Folkestone.
24. Mr. Edward Cam, Hoghton Preston.
25. Mr. Jon Collinson, Barnacre, Garstang.
26. Mr. William Crossley, Burnley.
27. Mr. Q. W. Gardner, Pilling, Garstang.
28. Mr. W. M. Golden, Seire, Lutterworth.
29. Mr. J. Halsall & Son, Esprick, Kirkham.
30. Mr. S. G. Hanson, Basingstoke.
31. Mr. Ernest Haworth, Burnley.
32. Mr. W. Proctor, Heywood.
33. Mr. Q. P. Rawcliffe, St. Michaels, Garstang.
34. Mr. W. Watson, Hebden Bridge.
35. Mr. John Wilcock, Goosnargh, Preston.
36. Mr. Harold Wood, Poulton-le-Fylde.

Anconas.

37. Mr. James Heap, Worsthorne near Burnley.
38. Mr. I. Parker, Newton, Kirkham.
39. Mr. Geo. B. Sharp, Newton, Kirkham.
40. Mr. W. B. Sharp, Clifton, Kirkham.

LOCAL SECTION.

1. Mr. Johnson Eastwood, Accrington.
2. Mr. John Green, Brunshaw near Burnley.

3. Mr. Leonard Green, Whalley.
4. Mr. Abel Latham, Brierfield.
5. Mr. William Haycock, Burnley.
6. Mr. Robert Pollard, Ightenhill, Burnley.
7. Mr. W. R. Robinson, Briercliffe.
8. Mr. John Whittaker, Burnley.

Buff Orpingtons.

9. Mr. H. Murphy, Reace, Blackburn.
10. Mr. Levi Qolla, Burnley.

Buff Rocks.

11. Mr. Richard Simpson, Ightenhill, Burnley.
12. Skipper Bros., Burnley.

Anconas.

13. Mr. Jonathan Crabtree, Burnley.
14. James Heap, Worsthorne, Burnley.
15. Mr. H. Murphy, Reace, Blackburn.

White Leghorns.

16. Mr. Joseph Bateson, Burnley.
17. Mr. W. Cranshaw, Clowbridge.
18. Mr. J. Q. Crossley, Burnley.
19. Mr. W. Crossley, Burnley.
20. Mr. Joseph Harker, Burnley.
21. Mr. Ernest Haworth, Burnley.
22. Mr. Isaac Marjerison, Burnley.
23. Mr. Bart Le Glimic, Burnley.
24. Mr. James Smith, Burnley.
25. Messrs. Thomson & Shepherd, Haslingden.
26. Mr. L. R. Wigglesworth, Simonstone.

THE UTILITY POULTRY CLUB.

Twelve Months' Laying Competition.

Mr. L. W. H. Lamaison, Hon. Secretary of the Utility Poultry Club, Merstham, Surrey, has received the eleventh monthly report of the competition which is being conducted at the Harper Adams Agricultural College, Newport, Salop, under the management of Mr. F. W. Rhodes.

The competition ends on the 14th October, so that there will be one more monthly report issued before the final report and list of awards.

The positions of the three leading pens remain the same as last month; the total number of eggs laid by the leading pen, viz: Six White Wyandottes being 1180 valued at £5 8s. 3½d. according to market prices obtained from the Board of Agriculture Weekly Returns.

A pen of Buff Rocks still hold the second position but unless they make very rapid progress they will not be able to catch up the leading pen in the remaining short period for which the competition has to run.

It is interesting to note that although the leading positions are held by White Wyandottes, Buff Rocks and Leghorns, pens of those broods are also to be found towards the end of the list which gives the order of merit of the one hundred pens competing. This bears out the theory that egg production is more a question of "strain" than breed.

The competition is open to the public and may be viewed on application being made to the College authorities. Intending visitors should make early application as the competition will soon be drawing to a close.

The following are the records of the six leading pens for the eleventh period of four weeks:—

Order.	No. of Pen.	Breed.	Total eggs to August 10th.	Total value to August 10th.
1	60	White Wyandottes	1180	£5 15s. 9
2	86	Buff Rocks	1045	£5 8s. 3½
3	32	White Wyandottes	1099	£5 5s. 0½
4	29	" "	1066	£4 17s. 0½
5	24	Black Leghorns	973	£4 14s. 5½
6	54	White Wyandottes	973	£4 13s. 11½

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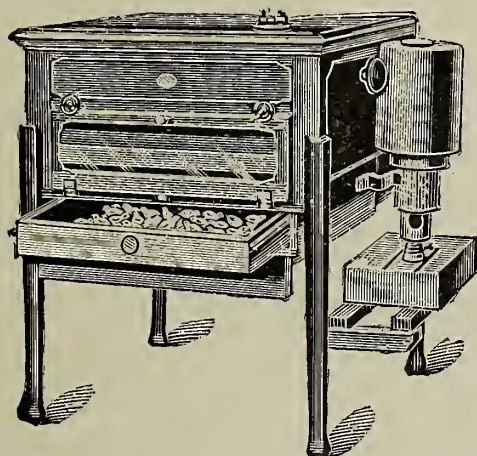
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40 egg size ..	£2 10 0	150 egg size..	£4 5 0
66 " "	3 0 0	240 " "	6 0 0
100 " "	3 15 0	390 " "	7 5 0

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Our PATENT SELF-TURNING EGG TRAY turns all the eggs in a second by one movement of the hand without the slightest jar or vibration. The eggs can be turned without opening the door, so that the temperature can be kept absolutely constant. It is an enormous time and labour saver. Thousands flocked to see it at the Dairy, Manchester, and Crystal Palace Shows, and it was the unanimous opinion that it was the best invention ever brought out for the improvement of incubators.

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Economy in Feeding.

Now that the cost of feeding stuffs is so high, it behoves every poultry-keeper carefully to look to his feeding bill and see what he can do to economise in feeding.

The art of milling is to combine the most nutritive properties of the various grains and blend them in well-balanced proportions, so that the poultry-keeper can add a more inexpensive by-product, such as middlings or bran, and still have a food that will give satisfactory results.

We have recently received samples of the "Clarendo" Malted Laying and Fattening Meals, which are regularly advertised in our columns. For these it is claimed that they consist of scientifically milled cereals, blended in well-balanced proportions, to which is added granulated meat, malt, and milk.

The Fattening Meal contains somewhat similar constituents to the Laying Meal, but instead of meat, oats are used, and the whole contains a large proportion of fat-forming material.

In both these foods is a proportion of Malt Tonic, which is not only a food in itself, but has the effect of aiding the digestion of other foods with which it comes into contact.

Those of our readers who have not yet been induced to give these foods a trial, are therefore recommended to do so. Samples and particulars, *vide* the advertising columns, will be sent on application to the proprietors, Messrs. White, Tomkins, & Courage, Ltd., 48, Mark Lane, London, E.C.

Rapid Growth of Chickens by Electricity

One of the largest poultry farms in the South of England has been trying the experiment of rearing young chicks by means of electrical treatment. This appears to have been highly satisfactory. Two groups of chickens were experimented upon. One half was reared naturally; one of these died, and the survivors took three months to attain the marketable size. Of course they were hatched rather late in the year, which may account for the large proportion of deaths. The other batch was reared by the electric system. In five weeks they were marketable, and six only of the number died at the start, being weaklings. It is called the intensive system, and trials on a larger scale are to be made, and there is every hope that success will be attained, in which case poultry farming should be found a paying business for this would not only decrease the expense of feeding young chicks, but would make them so much easier to produce for the markets.

Mr. Tamlin's Export.

The following is a list of W. Tamlin's exports, August 1913: two 100 incubators and three 100 foster mothers, to Fernand Colman, agent for Belgium; five 60 and ten 100 and five 200 incubators, five 60 and ten 100 foster mothers, to Messrs. Goso & Martinez, agent for the Argentine; six 60 and six 100 incubators and six 100 foster mothers, Woodhead, Plant & Co., agents for Cape Town; six 60 and six 100 and six 200 incubators, to Messrs. Chandler, agents for Victoria, Australia; six 30 and six 60 and six 100 incubators, to Mr. Jno. F. Marshall, agent for the Transvaal; three 60 incubators, to Rio de Janeiro, for order of Torrome, Sons & Co.; five 60 and two 100 incubators, and three 100 foster mothers, to C. W. Champion, agent for the Orange Free State; one 100 incubator, to A. Annenkoff, Russia; one 30 incubator and one 60 foster mothers, to Jno. Maling, Rio de Janeiro; one 100 incubator, to W. Wilson, Rangoon; six 60, six 100 and six 200 incubators, six 60 and six 100 foster mothers, to Mons. Andre Masson, agent for France; one 100 incubator, to Thos. Greenwood, Trinidad; one 200 incubator, to Geo. de Richelle, Austria.

Our World-Wide Circulation.

It is not our custom in the pages of "The Illustrated Poultry Record" to discuss our circulation, although its world-wide character is known to every reader.

But we feel that we must make an exception to the letter from Mr. Isaac Spencer quoted below. That every foreign order and all foreign applications for catalogues should have come through the advertisement in "The Illustrated Poultry Record" is a most unique testimonial. A further point which to our mind is very favourable and greatly to the credit of our columns, is that all the orders have been of the best quality stock. Readers of "The Illustrated Poultry Record" are those who appreciate the value of the best quality, and realise that such quality cannot be obtained without paying a fair and proper price for it.

However, we commend Mr. Spencer's letter to the perusal of every reader as being a point of more than ordinary interest and importance.

Rhode Island Red Farm,
Knox, Harrogate.
May 18th, 1913.
The Editor,
"Illustrated Poultry Record,"
Tudor House,
Tudor Street, E.C.

Dear Sir.

I am glad to be able to tell you that out of all the poultry papers we have advertised in, the "ILLUSTRATED POULTRY RECORD" is by far the best for any breeder wanting to advertise his stock birds abroad. Every foreign order I have received and all the applications for catalogues have come through your paper, while I am glad to add that many large orders have been received in this country. I have only exported two separate orders of eggs to Norway (both through your paper), but have made arrangements for exporting birds to customers in Chili and Australia, while I have had numerous applications for our Rhode Island Red catalogue from Germany, France, Switzerland, and South Africa. All the orders have been for the best quality stock and prices have been more than satisfactory. It is the first year I have advertised in your paper and I am convinced that it must have a splendid circulation amongst the best class of fanciers, both at home and abroad, judging by the large numbers of enquiries I have received and the class of birds asked for.

I remain,
Yours faithfully,
J. S. PARKIN,
Manager.

The Illustrated Poultry Record

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50 " " "	2/6
12 " " "	8d.
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50 " " "	1/6
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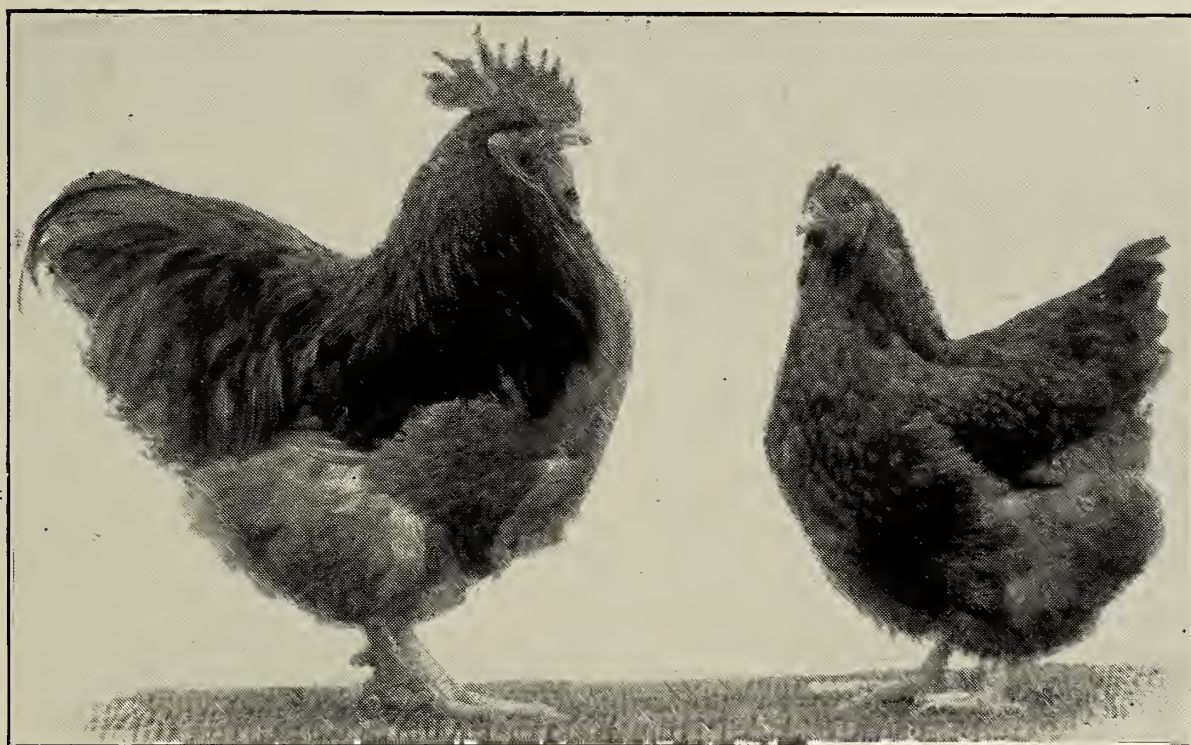
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